

FINAL REPORT

Committee on School Inquiry Board of Estimate and Apportionment

Presenting Summary of Conclusions of the Inquiry Conducted by the Committee

Committee on School Inquiry

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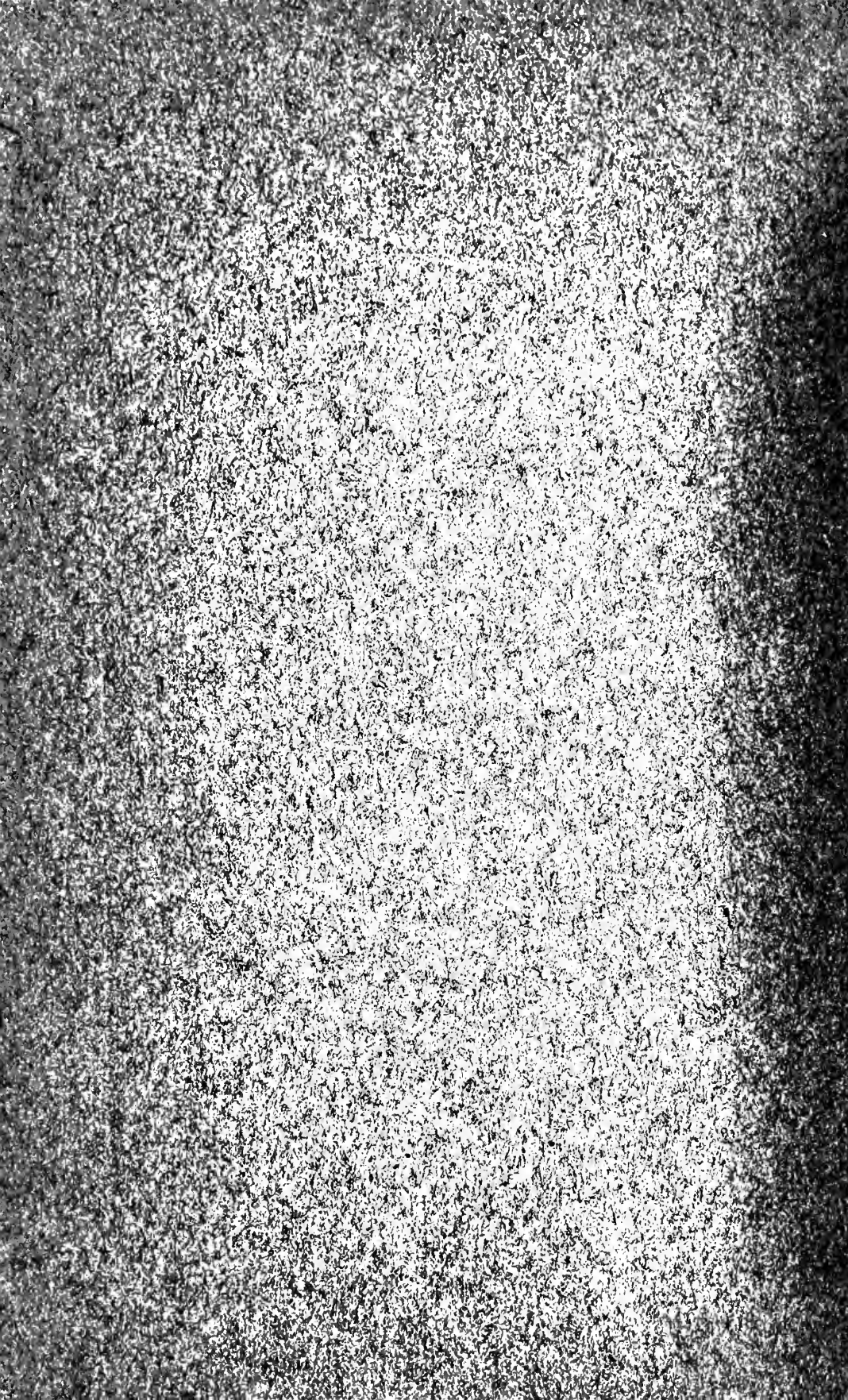
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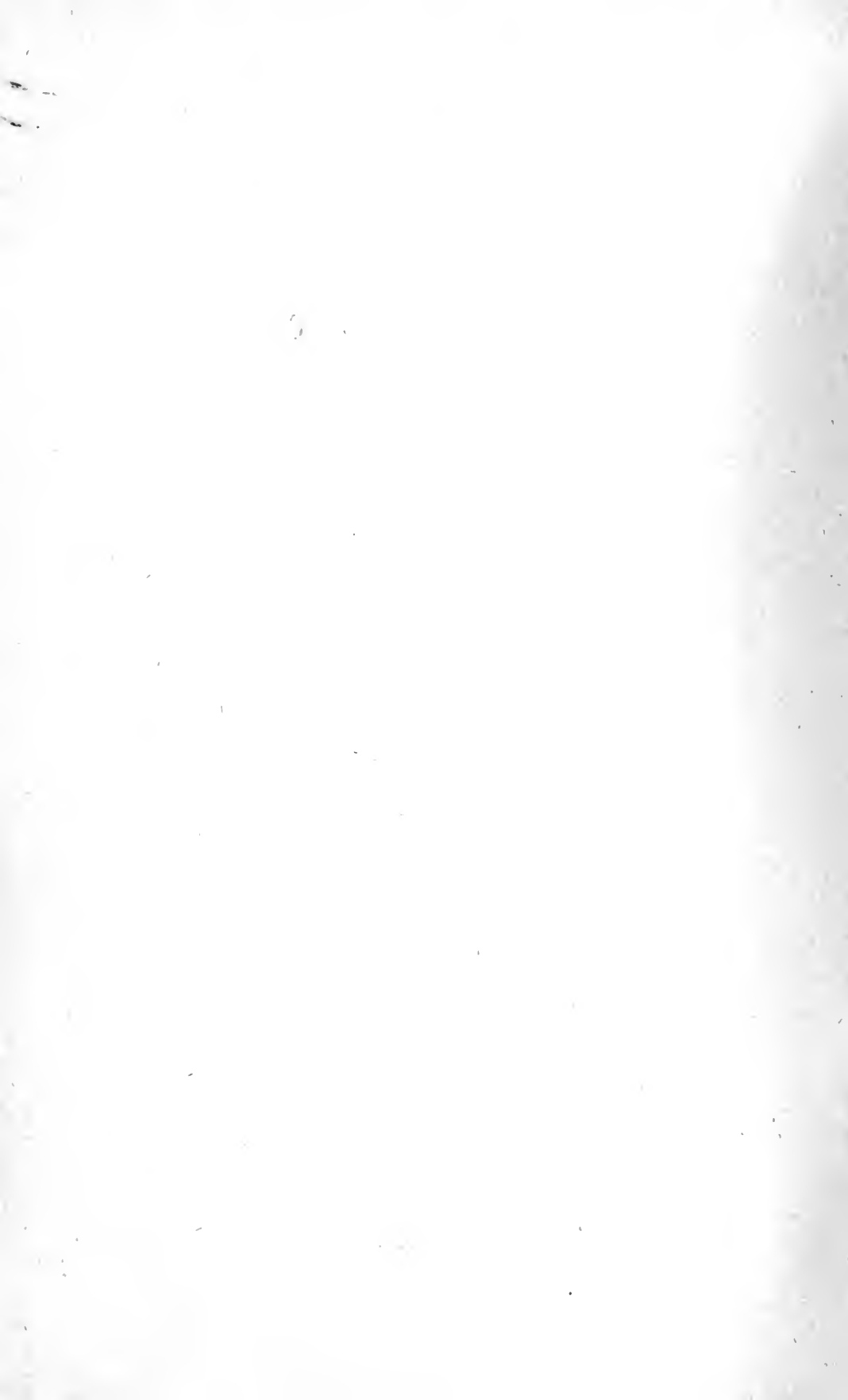
President of the Borough of the Bronx

CITY OF NEW YORK

1911-1913







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BOARD OF ESTIMATE AND
APPORTIONMENT

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OF THE INQUIRY CONDUCTED
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CITY OF NEW YORK
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May 29, 1913.

*To the Honorable,
The Board of Estimate and Apportionment.*

GENTLEMEN:—The Committee on School Inquiry, of the Board of Estimate and Apportionment, appointed pursuant to a resolution adopted by this Board on October 26, 1910, herewith presents its final report. The report comprises three volumes, and consists of the report of the Committee and the reports of the various specialists employed by it.

It was originally the intention of the Committee to take up in conference with the members of the Board of Education the reports of the various specialists before the submission to the Board of Estimate of the Committee's final report, in order that its report might be based upon the consensus of opinion of the members of the Board of Education, as well as the members of the Committee. The work of the inquiry, however, has consumed so much more time than was originally expected, and other matters of great importance have demanded so much of the time of the members of the Committee, that it has been impossible to conduct the proposed conferences. The Committee feels that more will be gained by submitting the entire results of the inquiry at the present time, while there still remains an opportunity to secure constructive results during the life of the present administration, than would be gained by undertaking a conference at this late date.

I. THE RESULTS OF THE INQUIRY.

Your Committee submits herewith a brief outline of the results and general conclusions of the school inquiry for the consideration of the Board of Education, and indicates the salient facts relating to its origin, plan and significance.

(1) Co-operation Between the Board of Estimate and the Board of Education Established.

Your Committee is able to report that there is now nothing to prevent the fullest coöperation between the City Government and the Board of Education in the development of the public schools. In a statement transmitted by Superintendent William H. Maxwell to the Comptroller, outlining his plans for the use of the proposed allowance of \$9,250 for one statistician experienced in school matters, three clerks and one stenographer and typewriter, he has listed what he will be able to undertake, with the aid of the proposed force, as follows:

1. "The design is to relieve as far as possible the principals and teachers of schools from making the very heavy and cumbersome annual report from which statistics for many important purposes are derived, and instead thereof to keep in this office, derived from the monthly reports of principals, a statement drawn up in proper statistical form of any essential facts from month to month, which will be practically completed when the month of June arrives, and from which the necessary reports may be made to those requiring them at any time.
2. "To relate the registration and attendance of the public schools to population more closely than is done at present.
3. "To collect and study all statistics bearing upon the matter of the selection of sites for new school buildings and to enable the City Superintendent to advise the Board of Education regarding the proper order for the erection of buildings and the purchase of sites.
4. "To make careful study of the problems of promotion and non-promotion, rapid advancement and retardation, not only for the benefit of the children concerned, but for a more economical administration of the schools.
5. "To collect statistics bearing upon the proper distribution of the pupils in the schools throughout various school buildings, by districts, as far as this subject may be within the direction and control of the Board of Education.
6. "To collect and tabulate statistics acceptable to the Budget Committee of the Board of Estimate as to the need for new teachers in day elementary, high, training and evening schools, etc.
7. "To prepare the necessary annual reports for transmission to the State Department and the United States Department of Education.
8. "To make careful study of all these statistics and any similar statistics with a view to a more efficient and more economical administration."

It is now apparent that the Board of Education has indicated its intention to adopt a definite program for the development of the schools and to conduct its work upon the basis of fact, rather than upon the basis of educational opinion.¹ If the fact basis is accepted, and adhered to by the Board of Education, the chief source of discord will have been eliminated, for the only possibilities for future differences of opinion will lie in the interpretation of facts and in the translation of knowledge into action. The situation calls for the hearty coöperation of the Board of Estimate and Apportionment with the Board of Education, for enlightened public opinion may be safely depended upon in the future to throw the weight of its influence in the right direction. Your Committee believes that the establishment of intelligent coöperation in the place of misleading irresponsible conflict is well worth all that this inquiry has cost even if no other constructive suggestions had resulted therefrom.

¹ The semi-annual report of Hon. Thomas W. Churchill, President of the Board of Education, which was presented to that body on July 9, 1913, contains the following reference to the present relation of the Board of Education to the Board of Estimate and Apportionment:

"The year has shown what in previous years many had surmised to be true, that quarrels with the Board of Estimate are unnecessary and wasteful. The Board of Education, by delegating so many of its duties to subordinates, had lost touch with the real needs of the schools and had found itself unable to understand or to demonstrate to the Board of Estimate the needs of the schools. Subordinates will confer freely with the Board of Education and substantiate, by a less reluctant exhibition of records, statistics and facts, their propositions. As a result you will gain, in the opinion of the Board of Estimate, your rightful standing as a body conversant with the needs of the schools, a body economical in requisition for those needs, and a body determined in accordance with the laws to be the factor to decide as to how the Department shall be conducted."

As further evidences of the willingness of the Board of Education to coöperate with the city government for the good of the schools, attention is called to the special investigations of (1) ventilation, (2) truancy, (3) reports and the reporting system, (4) methods of estimating the number of teachers required in the conduct of the schools, (5) the retirement fund, (6) superior merit and the work of the Board of Examiners, (7) the training schools for teachers, and (8) the course of study, all of which have been carried on by the Board of Education during a period covered by this inquiry. Within the past six months the Board of Education has acceded to the request of this Board, and has made provision for the more definite calculation of salary accruals. On May 14 the Board of Education adopted a resolution calling for a trial of the method proposed by Dr. Frank P. Bachman, one of the specialists engaged by this Committee, for the collection of information upon which to base its estimates for additional elementary and high school teachers. Principals' and teachers' associations have been studying the various interim reports submitted by this Committee, and have made very helpful reports as a result of their deliberations and study. The special committee of the Board of Education which has been studying the Bachman report on "Intermediate Schools" has reported in favor of their extension as far as possible.

(2) Economies Effected or Indicated as a Result of the Inquiry.

There is no way to measure in terms of money the economies effected as a result of this investigation and through the work of this board. An indication is afforded by the annual budget estimates of the Board of Education. Before this board began to ask questions the Board of Education yearly estimated that the annual increase of school population was twice what it actually had been.

For example, when the elementary school principals were requested through the City Superintendent to estimate the increase in register in their respective schools on December 31, 1912, over the register in December, 1911, the estimates, when added together, indicated an increase of 35,377 pupils, whereas the employees of this Committee showed that the actual average annual increase for four years previous was only 19,108, or 16,269 less than the principals' estimate for the year 1912 over 1911.¹

The effect of this analysis upon the Board of Education's own estimate is shown by the following, taken from its estimate for 1913: Estimated increase in register for December 31, 1912, 18,607; average annual increase for five years, 16,885. This shows a difference between the estimated increase and the average annual increase of only 1,722. In 1912 the Board of Education asked for a total of 1,260 additional

¹In this connection Dr. Frank P. Bachman makes the following statement in his report on Estimating for Budget Purposes the Number of Teachers Needed in the Elementary Schools:

"These exaggerated estimated increases in the register when the individual school was the unit of the forecast and principals were relatively free to make their estimates in their own way illustrate how inexact such estimates are and how more exact estimates could easily have been made on the basis of the increase year over year for a series of years in the register of the system as a whole."

teachers, to cost \$648,056. Whereas, for 1913, it asked for only 986 additional teachers, to cost \$523,016. Despite the fact that the equal pay law, which increased the average salary of most teachers, went into effect in 1912, the Board of Education reduced the estimate of the amount of money required for additional teachers by 19.29 per cent., and its estimate of the number of additional teachers required by 21.70 per cent. During the year 1912 over 219 additional teachers were employed for whom no funds were allowed in the budget.

Considerable economies have been effected by the repair shops installed by the Brooklyn Bureau of Buildings following this Board's refusal to vote funds for new desks when remodelled old desks could be used. Further economies in supplies have been effected through a more careful analysis and inspection of goods delivered.

The estimated possible economies set out in the two Armstrong reports alone are as follows:

Report on the Condition and Efficiency of Public School Buildings (annually)	\$650,000
Report upon New York Public Schools; Delays in Location, Construction and Design (annually).....	1,200,000
Total	\$1,850,000

The adoption of the coöperative plan of vocational and continuation school work will make unnecessary the construction of at least two vocational schools annually for the next few years, which would have to be provided if the school system were to introduce that training along the lines heretofore recommended by the Board of Education. The coöperative plan of work will, upon that basis, save at least \$1,000,000 annually for the next several years, and will produce much more practical results, if the experience of Cincinnati, Ohio, and Fitchburg, Mass., is to be trusted.

(3) The Achievements of the Local Schools Indicate the Intrinsic Bases for Future Progress.

As was to be expected the inquiry has demonstrated that the local school system has already conducted experiments and has produced

¹ BUDGETARY REQUESTS OF DEPARTMENT OF EDUCATION TO PROVIDE TEACHERS (1) FOR INCREASE IN REGISTER AND FOR THE REDUCTION OF OVER-SIZE CLASSES ONLY

Budget Estimate of	(1) To be Appointed in Fall Term Preceding Given Budget Year		(2) To be Appointed During Budget Year		(3) Total Amounts Requested
	Teachers Requested	Amount Requested	Teachers (3) Requested	Amount Requested	
1912.....	438	\$307,300.00	914	\$272,874.16	\$579,440.83
1913.....	384	295,480.00	535	(2) 172,208.34	467,688.34
1914.....	324	270,640.00	382	133,666.65	404,306.65

- (1) Does not include principals, assistants to principals and additional teachers.
 (2) New salary schedules went into effect, increasing initial salary from \$640 to \$720.
 (3) Requested for five months only.

tested results which should be utilized for further experimentation and for the eradication of the patent weaknesses in the present system. Your Committee has found much to commend, as well as much to criticise. It believes that it has successfully demonstrated the possibility of offering serious constructive criticism, while at the same time giving due credit for the great achievements of those who have given their best efforts and the better part of their lives to the development of our system of public education. The Committee cordially approves of the praise given to Dr. William H. Maxwell, City Superintendent of Schools,¹ and to the heads of the system by the various reports of the specialists employed by it. It wishes also to express its approval of the work of those in the ranks whose achievements are considerable, of the veritable army of teachers and directors who, unknown and unheralded, perform each task and render each service without fear and for the good of the community.

(4) The School is the Intermediary Between the Individual and Society.

This inquiry has re-emphasized that the public school is a great engine of democracy, and, as such, should not be dominated by any class. It can render its greatest service to society when all members of society are giving their best service to it. The American people have a right to expect that their best political scientists, political economists, statisticians, religious teachers, labor leaders and students of public affairs, as well as their best educators, shall coöperate and shall strive to promote the proper development of the public school, for it is only when all of these authorities join with the educator and exert their united efforts that society is truly represented, and that the layman may feel assured that the public school may be made to render service commensurate with its cost and worthy of the fondest hope of democracy.²

¹ See Elliott report, pp. —, and letter of Supt. Maxwell setting forth the achievements of the system since 1899, pp.—.

² In the Publications of the American Sociological Society, Vol. VII, pp. 64-65, Prof. Paul Monroe, of Teachers College, Columbia University, says:

"If I may speak for the largest group of professional men and women in our society, I would formulate this argument in terms of a plea of public education: a plea to the scientist, that he be interested not only in the new interpretation of phenomena, and in the new control of natural forces; but also in the dissemination of scientific knowledge and scientific methods of thought and procedure among the masses, and thus assist in the control of the greatest of all forces, public opinion and social will; to the economist, that he be interested not only in the investigation and interpretation of the economic phenomena of society, but also in that institution which touches more lives and those lives more powerfully than any other save possibly the state itself, that it be not one of the most wasteful of institutions in the expenditure of human energy, and relatively one of the most inefficient in the expenditure of social wealth; to the historian, that he realize that the vital connection in the continuity of history is to be made in the transmission of the achievements and standards of the past to the coming generation; that the really vital thing in history is the *teaching of history* to the end that historic forces and institutions be generally understood and conserved; to the sociologist that he also give attention to the problems of public education, a

The wide discussion of the reports in the daily press and monthly periodicals and the public conferences and discussions thereof prove clearly that the interest of the general public in the schools is so keen as to make it forever impossible for any influence to make the schools the football of machine or personal politics.

II. THE GENERAL CONCLUSIONS OF THE INQUIRY.

Your Committee has summarized the main conclusions and constructive suggestions upon which its investigators are in general accord. In presenting this summary the Committee wishes it clearly understood that it is not in a position to pass final judgment upon the worth of those recommendations which deal with problems requiring treatment at the hands of those qualified by academic training and practical experience. They are listed herein in their logical order and in brief and conclusive form. All the suggestions which deal mainly with educational matters have financial significance. The more obvious facts of financial import are pointed out by the Committee under the appropriate heads.

CONCLUSION ONE.

The course of study in all schools should be organized around human problems and made simple and elastic enough to permit of differentiation to meet the needs of different nationalities and groups.

In a letter to Professor Hanus, dated September 6, 1911, the City Superintendent of Schools sets forth in detail how difficult it had been to establish a uniform curriculum of eight years.¹

Professor McMurry, in his report upon "The Course of Study," has pointed out that the New York course of study is in some respects twenty years behind the times, that it is not organized around human problems, that it shows want of educational leadership, and that it is

social process now so influenced by the general principles which are fundamental to his science that it has become the chief means by which society seeks to accomplish a great variety of its purposes—to assist its helpless; to correct its delinquents; to improve its dependents; to equalize its opportunities; to preserve its resources; to lift up the lowly races; to amalgamate alien races; to preserve its hard-won wealth of culture; to perpetuate the results of its age-long struggle with Nature; to render stable the triumphs over the limitations of human nature; the process by which it seeks to realize in coming generations those ideals which are promulgated by the present as an aspiration or as a vision of possible attainment."

¹The letter of City Superintendent Maxwell to Professor Hanus will be found on pages—

not fitted to meet the needs of the pupils. He states in reply to criticism of his report that the local system does allow the teachers of special classes for backward and ungraded pupils to follow their own curriculum, teachers of cooking and reading to vary the course according to local conditions, and kindergarten teachers infinite variation in their work. The point of his criticism is that this differentiation should be extended to other subjects. As regards drawing, construction work, cooking and sewing, the investigator points out that:

"Nothing less than a complete change of viewpoint in the organization and development of the curriculum, in terms of both social values and child psychology, could do much to broaden the work as it ought to be broadened."

At another point he states:

"In spite of the fact that four-fifths of the children in some schools hear only foreign languages at home, while few in other schools hear anything but English, all are expected to spend approximately the same time in the study of English. And, of course, there must be overcrowding for some tens of thousands, and not enough work for other tens, while all suffer more or less."

Dr. Frank P. Bachman, in his report upon "Promotion, Non-promotion and Part-time," commenting upon the length of time it takes children to complete the elementary school course in this city, says:

"While pupils are, as we have seen, probably in attendance by fourteen on the average 7.2 years, 64.81 per cent. of all pupils thirteen to fourteen, exclusive of those graduating, continue in school between 7.2 and 8.2 years; 27.41 per cent. between 8.2 and 9.2; and 7.95 per cent. between 9.2 and 10.2 years. Yet less than 42 per cent. of the pupils entering the elementary schools of the city ever complete the course of study."

At another point this investigator says:

"That children need to remain one, two, three and even four years after becoming fourteen to complete the course of study—and some of them do not complete it even then—shows to what extent the proper length of the period of elementary education has been disregarded, and to what extent, considering the conditions under which children have to work, their progress is retarded by the excessive requirement that all of them shall complete the same course."

Dr. Calvin O. Davis, in his report upon the "High School Course of Study," says:

"We view this uniformity of prescription as vicious in principle and injurious in practice. It is undemocratic, unsocial, unpedagogical."

In another section of his report, in discussing the inadaptability of the general high school course for all who could or would profit by it, Dr. Davis says:

"It is certainly incongruous to provide a single uniform course for all pupils in the general high schools in a city with the diversified business interests, the complex social relations, and the individual difference in intellectual, physical, and moral powers found in New York City. Uniformity can operate advantageously only over a homogeneous body dominated by singleness of aim; not over a heterogeneous community with diversified aims and interests."

This same investigator, after comparing New York's course with that of ten other cities, as regards the scope of work offered in the general high school course, the intensiveness with which the many studies are pursued, and the flexibility with which the work is administered, concludes that New York ranks markedly below the majority of other cities with which it has been compared.

In order to administer a course more extensive in scope and intensive in attack than New York's existing course it is pointed out that it will be necessary that changes be made in the uniform prescriptions for all students. While it will not be easy to introduce a differentiated course of study for all schools suited to the needs of the individual, it is by no means impossible. The inquiry has indicated how it can be done.

Professor McMurry suggests that :

"The principal and teachers of a school in one of the crowded sections of the East Side, assisted by the best talent among the superintendents, shall plan a curriculum for that particular school. In this way, all the inhabitants of the city might be shown what one good curriculum is. Since the upper West Side contains a very different kind of population, a curriculum for a particular school there might be planned in a similar manner. Thus, a second curriculum might be secured adapted to a particular situation. For a certain school in the Bronx, representing a third type of environment, and of pupils, a curriculum might be prepared under like conditions; and a fourth, fifth, and others might follow, according to the number of somewhat distinctive types of schools in the entire city.

"With the help of these curricula principals and teachers of other schools might take the initiative in preparing curricula for their own schools. If they lack ability, or energy, or power to co-operate with one another, or all these together, they could at least adopt outright one of the several types already developed, that most nearly fitted their own condition. In that case they would at least get a much better fit than any they now have."

Mr. Stuart Courtis, in the report upon the application of his tests to some 33,000 New York school children, has outlined clearly how by the application of his tests the course in arithmetic may be made to meet the needs of children of different nationalities, and of different economic groups, and further, how the Board of Education may ascertain the grade of ability required in different pursuits, so that it may train children to meet these demands without making the school the handmaiden of business.

The methods outlined in Mr. Courtis's report, and by Dr. Bachman, in his reports upon "Promotion, Non-promotion and Part-time," and upon "Over-age and Method of Determining Over-age," or scientific methods similar thereto, will, if adopted and developed, make it possible for the Board of Education, the superintendents, the principals and teachers to get a grasp on their problems at the beginning of each term, and will thus enable them to do their work much more efficiently. In this way a body of information will be furnished currently, which will serve as a basis for frequent changes in the course of study to meet the needs of the community. In the case of the high school course Pro-

fessor Davis makes the following statement concerning its proper adjustment to the individual and to society:

"The principals of the various high schools should be encouraged, in conjunction and co-operation with their respective teachers, to make thorough analysis of the needs and desires of the community in which their schools are located, and of the dominant interests and real needs of the pupils that enter their schools. They should formulate courses of study for their several schools in the light of their findings and the best educational insight they can command. Such courses of study, unless disapproved by their official superiors, should then be put into actual operation in the schools for which they were designed, and the result carefully watched by the Bureau of Investigation and Appraisal. Every five years it should be incumbent on each principal and his corps of teachers to re-analyze the entire local situation and, so far as found advisable, to recast the course of study anew. Only by adopting some such procedure can a course of study be kept in touch with the real needs of the community it is designed to serve and in harmony with contemporary educational principles."

Massachusetts and Pennsylvania have adopted differentiated curricula. Of all great cities New York can most easily develop differentiated curricula, because the different nationalities live for the most part in compact groups, and, when they move, they usually pass from one section of the city to another section inhabited by people of their nationality. For example, there are the Jewish, Italian, German, Irish, Finnish and Chinese settlements. Jewish people leaving the East Side of Manhattan usually go to the Bronx or to the Brownsville district of Brooklyn. It is only the third or fourth generation of Jewish immigrants who move to the upper West Side or to the other sections of the city where the school population is most cosmopolitan.

CONCLUSION TWO.

The content of the course of study should be made as practical as possible and special attention should be given to the development of commercial, industrial and vocational subjects emphasizing the larger and more important aspects of industrial and commercial activities.

A course of study, built around human problems, and capable of differentiation and of adjustment to meet the needs of individual pupils should, according to the experts, use for illustrative purposes, as far as possible, customs, activities, pursuits and materials with which the pupils have had experiential relations.

Professor Hanus, in the "Report as a Whole," says that the program of studies in our public schools must cover:

- (a) The school arts—reading, writing, arithmetic;
- (b) Language and literature (modern and ancient);

- (c) History, government and economics;
- (d) Art (pictorial and plastic art, constructive art, and music);
- (e) Mathematics;
- (f) Natural science;
- (g) Manual arts and domestic arts;
- (h) Physical education, including physical training and athletics;
- (i) Vocational guidance.

Some school systems have made changes in the course in arithmetic and provide for the teaching of simple bookkeeping, which will enable children to keep simple personal and family accounts, before bank discount is taught. Elementary arithmetic is taught in terms of the store, the shop and the foundry, instead of in terms of general commerce and international trade. Professor Schneider has indicated in his report how such a course in arithmetic and other correlated subjects is not less cultural than the present course. He maintains that it is more cultural because it and other subjects taught in terms of actual life will help children to master their environment rather than to be mastered by it. In this connection it is pertinent to note that the Board of Education has directed that a trial be made of a course of study in arithmetic which was worked out by the Committee on Studies and Text Books and which is simpler and more concrete than the former course.

The fact that the industrial and commercial army is recruited, for the most part, from the elementary school, necessitates a differentiated course of study, according to Professor Hanus. In the "Report as a Whole" he says:

"It seems to me important that greatly increased flexibility in subject matter and administration should characterize the instruction of the last two elementary school years in harmony with the varying future careers of the pupils. Some of the pupils are going on to the high schools, some are going into industry or commerce or home life as soon as they are freed from school by the compulsory attendance law. Many of the pupils in these years are over age and have no interest in the usual 'academic' work beyond reaching the standard that will set them free. In any case a single uniform course of study for these pupils is not satisfactory in view of their different purposes; I suggest, therefore, that in a few schools, at least, the experiment be thoroughly tried and appraised long enough to really determine its value or the reverse, of a differentiated course of study; one for the pupils going on to the high schools, rich in the usual academic studies (including a modern language, if well taught); one for pupils going into industry, rich in the right kind of manual training and in the domestic arts for girls; and a third for boys and girls going into stores or other commercial shops, rich in elementary instruction in commercial subjects. While no one of these differentiated courses should neglect the subjects emphasized by the others, the dominant subject matter should be clearly evident to parents and pupils alike. Such differentiated courses are already established in a near-by State and are decidedly promising in ministering to social and individual needs, not only holding pupils in school, but giving them something of real value to them while they remain. There is every reason to believe that such courses might prove to be equally advantageous in New York City. This recommendation applies with special force to the intermediate school, to be discussed later."

It is obviously impossible for the school to create artificial shops, foundries, store and manufacturing plants, where pupils can be given

practical training under ideal conditions. The cost of such a procedure would be prohibitive if it were possible or advisable. Commenting on this situation, Dr. Frank V. Thompson, in his monograph upon "Commercial Education," says:

"Because the public school has hitherto assumed the responsibility for commercial education, commerce has felt no responsibility for it. But the experience in vocation (industrial) education points strongly to the general conclusion that the school unaided cannot deal effectively with the problem. Business men will need to go through the evolution of thought which is leading the manufacturer to assume his share in industrial education. *For reasons of efficiency, expense, and expediency, commercial training¹ will need to be divided between the school and the business house.* Business, like industry, formerly had a system of apprenticeship which will need to be re-established in some form of co-operation with the schools. In the meantime, the schools must not wait; a plan which is immediately possible must be undertaken; and the practical co-operation between the school and business must be constantly aimed at."

In other words, as Professor Hanus states it:

"The solution of the problem of satisfactory commercial education must be solved in the co-operation of commerce and education, just as the solution of the problem of industrial education is sought in the co-operation of industry and education. Commerce, like industry, must recognize its responsibility to the thousands of young lives devoted to its service."

Dr. Thompson states at another point:

"New York City's commercial courses are academic rather than vocational. The general subjects in the course are in most cases not related to the vocational; the specific vocational subjects cover only a part of the vocation, and the lesser part at that. Compared with the vocational industrial courses taken as a type, the commercial courses under consideration have so small a connection with commerce that they cannot be strictly classified as vocational."

"The contemporary conception of commercial education in New York City should be largely extended, and should emphasize the larger and more important aspects of commercial activities, such as merchandising, salesmanship, business organization, and advertising."

It has been conclusively demonstrated by Dean Herman Schneider, of the College of Engineering of the University of Cincinnati, that the school and shop can work together:

"If the one common ground will be the mutually safe ground of the mental, physical and the moral advancement of those who work. This will seem to the superficial critic a too ideal basis on which to do business in this day and generation. He will probably agree that it is a nice scheme to have in mind, but an impossible one on which to operate. There is but one satisfactory answer to this, namely, that the thing is being done and is being done satisfactorily."

The satisfactory solution of the problem involving the relation of schools to industry, as stated by Dean Schneider, is found in education accompanying gainful employment—in the coöperation of industry and education. This coöperation, according to Dean Schneider, may be best effected in two distinct ways: by organizing coöperative or part-time vocational schools, and by continuation schools. The former is based on an agreement between the school system and a group of manu-

¹ Italics not in original.

facturers, whereby the manufacturers give appropriate shop instruction to groups of apprentices, and the schools the accompanying related theoretical and general instruction. The apprentices receiving this instruction are subdivided so that the two divisions of the group alternate between shop work and school attendance. The apprentices receive the usual apprentice pay for their work. The schools have no practice shops, since the industries themselves provide the shop training required. The latter, the continuation schools, are based on an agreement by the employers to release their youthful employees at periods when they can best be spared for a limited time, a half-day or a day altogether, per week, for appropriate instruction by the school system. In Ohio the law makes the continuation school compulsory.

Dr. Schneider says:

"Objection is frequently made on the part of shop owners to the coöperative system on the assumption that alternating sets of students would cause confusion and inconvenience to the shop organization. Experience covering a period of four years—at Fitchburg, Mass.; Solvay, N. Y.; and Chicago, Ill.—shows that this assumption is false."

It may be well at this point to call attention to the fact that the first steps showing the practicability of the coöperative plan suggested by Dean Schneider have already been taken in New York's day elementary schools and evening schools. Superintendent Shiels has introduced the plan in the evening schools, and it is now being tried out in Public School No. 4, Manhattan, through the coöperation of several white goods' manufacturers with that school.

The American Federation of Labor's Committee on Industrial Education reported, after careful study, in favor of the extension of the coöperative plan, and called particular attention to the fact that the plan did not permit of the exploitation of the schools by commercial and industrial interests.

CONCLUSION THREE.

The Board of Education should take necessary steps to effect the gradual elimination of teachers of special branches.

The revision of the course of study along the lines indicated by the specialists employed by the Committee will make the gradual elimination of teachers of special branches possible, now numbering about 429, exclusive of kindergartens, and costing nearly \$500,000 per annum. In his report upon "The System of General Supervision and the Board of

Examiners," Professor Edward C. Elliott discusses the general, social and educational policies which condition the teaching of the special branches as follows:

"By their nature the effective development of the special branches presents not only numerous special problems of instruction and supervision, but, in addition, certain complex issues of general, social and educational policy. Notwithstanding the years of their testing, the special branches have not succeeded in attaining a recognized and guaranteed place in the program of studies of public schools. Their introduction has come only after an energetic and insistent campaign by those who have been convinced of their essential worth in popular education. Their further extension, after introduction and recognition, has been dependent upon various fortuitous circumstances, such as varying available financial resources, and the extent to which public interest has been aroused. Even with these things in mind the fundamental fact must not be overlooked that the successful incorporation of the special branches into the program of studies of elementary schools especially will take place only as the branches are in the hands of teachers and supervisors of training, merit, skill and balance.

"Our conclusion is that steps should be taken at once to render unnecessary the majority of the special teachers in music, drawing, and physical training, and to facilitate and hasten the effective qualifications of regular class teachers. Those teachers who are qualified should receive an appropriate salary bonus. As long as the teaching of these subjects is chiefly in the hands of a special group of teachers, not only will the public continue to have reservations as to the rightful place of such subjects in elementary education, but the regular teachers themselves will not be ready to assume responsibility for this special instruction, nor will principals consider it as among the objects of necessary attention."

The presentment of the City Superintendent of Schools, in his twelfth annual report, relative to the curtailment of the force of special teachers, explains the necessity for reducing the salaries of such teachers then in the service, or for abolishing a certain number of such positions, by the fact that the budget appropriations for the year 1911 were not sufficient to carry the then existing corps. "Had it (the curtailment) been deferred five years longer," said the City Superintendent, "it is probable that the special teachers of singing, sewing, physical training and drawing might have been dispensed with, without serious injury to the schools."

It was said by representatives of the Board of Education, during the budget hearings in October, 1910, that these teachers were employed because there was great need to improve the class work of the older teachers in the system, who received their education before new subjects were introduced into the curriculum and before many subjects in the course of study had been given a new content. It was made plain, however, that the work of the special teachers was not carried on under any direct control. The special teachers were teaching old teachers, as well as the new teachers, who were supposed to have been prepared in the city's training schools to teach the modern subjects.

Whether or not it will be more satisfactory for the system if these special teachers are taken over and given regular work, is a matter the Board of Education will do well to consider. The Director of Physical Training advises that the supervisors of this special branch should be the last to be eliminated.

CONCLUSION FOUR.

Each school as a neighborhood centre should ally itself with neighborhood interests and take cognizance of local needs.

There is a general agreement in the reports submitted to the Committee that the plan of procedure of each school should be dependent upon its individual conditions, and should not be controlled by the conditions in other school districts, as has been indicated in the foregoing discussion. If this plan be established, it is argued that it will then be possible for the school to function, not only with respect to local needs, but also as a center for the dissemination of culture in the entire city. As brought out by Dr. McMurry, this may be possible, provided the principal is made the real and not merely the nominal head of his school. To this end he and his teachers should take the initiative in making the curriculum in all subjects for their school. The possibility of carrying this into effect is undoubtedly conditioned by the amount of unassigned time which is allowed to the principal and his teachers.

The attention of the Committee has been called also to the overburdening of pupils with excessive home work, and home study assignments, especially so in the departmental grades and in the high schools, due undoubtedly to the lack of coördination among the several departmental teachers. In this connection the necessity for an investigation into this special phase of the school problem is emphasized, and the suggestion for frequent conferences of teachers in departmental and in high school grades on the subject in question is urgently recommended.

As to the syllabi furnished the principals and his teachers, Dr. McMurry recommends that such syllabi should discuss methods in a way that will in no sense tend to tie the principal's hands or those of his teachers.

Answers of principals to questions propounded by the specialists engaged by the Committee contain admissions by principals to the effect that their main efforts are directed to other matters than to the improvement of the instruction. Discussing the powers and duties of elementary school principals, Professor Elliott, in his monograph on "The System of General Supervision and the Board of Examiners," maintains that, while the by-laws make the principal "the responsible administrative head" of his school, and that the spirit of the by-laws places upon him a large supervisory responsibility, in fact, however, the principal has no real supervisory independence, or initiative, whatsoever. Professor Elliott says:

"Practically all of the constructive features of his work are under the immediate control of the Board of Superintendents, the associate superintendent, or the district superintendent. In the last analysis the ineffectiveness of the elementary schools of the city may be measured by the extent to which the principals fail to perform, or are prevented from performing, those activities that are the rightful functions of their offices."

In his report, entitled "Problems in Organization and Administration of High Schools," Dr. Frank W. Ballou has pointed out that the high school principals in this city are cramped in the same way that the elementary school principals are, and that they should be released from clerical and administrative routine, to the end that they may be enabled to contribute the results of their experience and their knowledge to the solution of high school problems. Dr. Ballou maintains that the principal can be released from routine work only by the standardization of the work of principals, heads of departments and teachers. Whether this means that provision must be made for especially qualified statistical clerks, of different character from those now assigned to do routine work, the Board of Education should take steps to determine.

Professor Elliott has pointed out that the weakness of the present system is its centralized control and its failure to provide for checking and evaluating processes. He says:

"The schools have lacked an audit that would exhibit how all that which is being attempted is being done, an audit that would reveal the degree to which the machinery of organization is adapted to its purpose; an audit that would display the essential facts of the census, attendance and rate of progress of pupils, the accomplishments of teachers, and an analysis of the real cost in money of the several and numerous activities that enter into school education. The more important of these facts New York City does not know to-day."

The Bureau of Investigation and Appraisal, suggested by Professor Elliott, if established would become the centralizing and unifying force in the system adjusted on an absolutely impersonal basis. He says:

"This bureau or division should be in charge of a chief or superintendent who is directly responsible to the Board of Education, and should be organized in such a manner as to enable it to serve as the central agency for the gathering and interpretation of statistical and other data with reference to the schools; and also for the carrying on of such investigations as are necessary for the rational development and expansion of the school system."

It is to be hoped that, if schools were organized to meet neighborhood needs, and if the work were standardized and organized, as indicated above, the arguments for small schools would lose much of their force. It would seem that, in view of the high cost of land and buildings, and the greater cost of administering differentiated curricula in small schools than in larger, that the city should not attempt to provide school buildings, seating only 1,500 pupils, until after the present methods of administering large schools have been revised, and it has been determined finally that small schools are necessary.

CONCLUSION FIVE.

The Board of Education should make a careful investigation to ascertain whether cosmopolitan or composite high schools offering several different courses of study or small high schools with differentiated curricula should be developed.

The report of one of the specialists employed by the Committee contains a recommendation for small schools with specialized curricula.¹ Another report offers a type course of study which apparently contemplates the development of the cosmopolitan or composite type of high school.²

Your Committee does not attempt to pass final judgment upon the educational questions involved. It does, however, maintain that high schools with specialized curricula are unduly expensive, because they provide many small classes, and because more buildings are required, necessitating the duplication of auditoriums, gymnasias, playrooms and playgrounds. Experience has indicated that differentiation in the course of study is possible where pupils, pursuing different courses, may be gathered together to take certain special work in common subjects; for example, those taking the classical course may join with those pursuing commercial, manual training, or technical courses in making up a class in practical civics, elementary political economy, elementary chemistry, botany, physiology or physical geography. In small schools with a specialized curricula special classes in any of these subjects might be impossible, because of the expense involved in providing a teacher for a few pupils.

As a matter of general observation it is manifest that the cosmopolitan type of high school tends to obliterate class distinction, while the small specialized high school tends to emphasize class distinction. The plumber's son and the merchant's son walk about the same halls, recite in the same rooms and play on the same athletic teams of the cosmopolitan school, although pursuing very different courses of study. All sorts of problems relating to human life and human relations stand upon an equal footing in the cosmopolitan high school, whereas there is some danger that the extension of the small specialized high school with specialized curricula may tend to keep alive the class distinctions which have arisen in the past because of the different pursuits people have followed. It has been argued that the establishment of engineering courses in regular colleges has been instrumental in improving the social status of the engineer. Many careful observers point out that the establishment of vocational schools and the teaching of manual training and vocational subjects in the high schools have had the same effect. The establishment of small specialized schools may react in the opposite direction, and, if so, they may become undemocratic.

¹ Report of Frank W. Ballou, pp.—

² Report of Calvin O. Davis, pp.—

The New York City Central Council of Teachers' Associations, which has been studying the reports submitted to this Committee by the various specialists, has collected a great deal of information bearing upon this question. Their report indicates that the weight of educational opinion is in favor of the cosmopolitan type of high school.

Because of the density of population in New York City, we fear that the cost of small specialized high schools would be practically prohibitive. On the other hand, this same density of population makes feasible and economical the large high school building, as it makes possible a most intensive use of auditoriums, gymnasias and athletic fields. These last mentioned facilities make provision for outside recreational activities which belong in a modern high school. In the case of small high schools these facilities must be duplicated without providing for any activities which cannot be carried out as well in a larger building, where the daily program is properly organized.

Some of the difficulties met with in conducting the large cosmopolitan high schools are due to the fact that our schools have not adopted modern administrative methods, and have not standardized the work sufficiently to permit of a proper division of labor.¹ Steps should be taken to ascertain whether the educational problems involved cannot be met by careful study and appraisal of results.

CONCLUSION SIX.

The Board of Education, through the proposed Bureau of Investigation and Appraisal or other bureau, should establish a fact basis for its educational, administrative and financial work.

It is impracticable for the Board of Education to deal intelligently with its many difficult problems, unless it has at hand basic data showing actual school conditions. If such data are not available, it is impossible for the Board of Education to know and to indicate to the city and to the general public what the fundamental achievements and needs of the system are. Most of the present reports examined during the course of the inquiry have been found to be unsatisfactory and inadequate. The information collected upon them has been, in many cases, found to be misleading.

The specialists engaged by the Committee agree in general that the current reports of the Board of Education should furnish data as to the following conditions in each school:

¹See report of F. W. Ballou, Problems in the Administration of High Schools, page—.

1. The number of boys and girls in each grade.
2. The actual size of classes.
3. The number of full-time classes, part-time classes and alternating classes.
4. The age-grade distribution of pupils.
5. The nationalities of pupils.
6. The number and actual size of available rooms.
7. The adaptability of classrooms and of the equipment of buildings and playgrounds.

With such basic data available the Bureau of Investigation and Appraisal, suggested by Prof. Hanus and his coöperating assistants, will be able to carry forward continuous studies of highly important educational problems. Many of these problems have been discussed in the investigators' reports submitted to this Committee. Some of these problems are indicated below.

(1) What is the proper size of an elementary school class and of a high school class? (See "Report on Promotion, Non-promotion and Part-time," by Bachman, and "Report on Problems in Organization and Administration of High Schools," by Ballou.)

(2) What are the proper limits of the period of elementary education?

(3) What should be the qualitative and quantitative requirements of the courses of study in the elementary school and in the high school? (See "Report on the Course of Study," by McMurry; "Report on Course of Study in High Schools," by Davis; "Report on Commercial Education," by Thompson, and "Report on Vocational (Industrial) Schools," by Schneider.)

(4) What should be the normal rate of promotion in classes? (See "Report on Promotion, Non-promotion and Part-time," by Bachman.)

(5) At what age is it best for the child to enter the elementary school?

(6) What has been the effect of part-time in the lower grades and in the upper grades; and in just what way is school progress affected thereby? (See "Reports on Promotion, Non-promotion and Part-time," and on "Over-age and Method of Determining Over-age," by Bachman.)

(7) What are the possibilities for the elimination of part-time?

- (a) By means of the transfer of pupils to other schools, by readjusting daily programs of study and time schedules, and by organizing intermediate schools. (See "Report on Intermediate Schools," by Bachman.)

- (b) By means of the Ettinger part-time plan, and its possible extension throughout the entire system. (See "Report on Promotion, Non-promotion and Part-time," by Bachman.)

(8) How does the transfer of pupils from school to school affect their grade advancement?

(9) Is it advisable to extend the group-teaching plan, now confined to the lower primary grades, to all the grades of the school?

- (a) Economic advantages of the plan.
- (b) Educational advantages of the plan.

(10) To what extent may the school work be improved by the scientific measurement of individual abilities and aptitudes?

- (a) By means of the Courtis tests. (See "Report on the Courtis Tests in Arithmetic," by Courtis.)
- (b) By employing the Binet-Simon measuring scale of intelligence. (See "Report on Ungraded Classes," by Goddard.)

(11) How may the available facts which relate to the compulsory attendance service and to the prevention and treatment of truancy be utilized for purposes of legislation, criticism, advice and administrative control? (See "Report on the Compulsory Attendance Service," by Burks.)

(12) What are the possibilities for effecting a proper coöperation between the schools, the industrial trades and the commercial houses? (See "Report on Vocational (Industrial) Schools," by Schneider; "Report on Commercial Education," by Thompson; and the "Report on the Courtis Tests in Arithmetic," by Courtis.)

(13) How may a proper standardization of teachers' ratings be established? (See "Report on the System of General Supervision and the Board of Examiners," by Elliott.)

(14) What is the probable annual growth and distribution of the school population? (See "Report on Estimating for Budget Purposes the Number of Teachers Needed in the Elementary Schools," by Bachman; and the "Report on New York Public Schools—Delays in Their Location, Design and Construction—Remedies Suggested," by Armstrong.)

(15) What provisions should be made for the wider use of the school plant? (See "Reports on the New York Public Schools" and "The Condition and Efficiency of Public School Buildings of the City of New York," by Armstrong; and the supplementary report on "The Economic Utilization of the Public School Plant for Educational and Recreational Purposes," by Howe.)

(16) How does the system of ventilation in the classroom and the quality of air-supply affect the health and progress of school children?

(See "Reports on the Condition and Efficiency of Public School Buildings of the City of New York," by Armstrong; and joint report on "Ventilation Conditions and the Quality of Air Supplied to Classrooms in the City of New York," by Armstrong, Baskerville, Winslow and Lucas.

The fundamental purpose of the Committee's investigation was, as has been pointed out, to collect facts on school conditions and to show how statistical and experimental methods may be applied to the work of the schools, rather than to set up any definite and final conclusions as to the solution of local school problems.

Items 1, 3, 4, 6, 7, 10, 11, 12, 13, 14, 15 and 16, in the foregoing list of problems, have been studied during the course of the investigation. The study of these problems should be carried on continuously along the lines indicated in the reports, or in such way as the further conduct of these inquiries may indicate. Items 2, 5, 8 and 9 are merely indicated in the various reports.

The Board of Education has recently undertaken studies of some of these problems, or of problems closely allied thereto. There is the same need for continuous studies of all these vital problems. According to the specialists employed by the Committee, if the results of these studies are properly tested, and the related facts scientifically assembled, each half-year of school work will yield additional evidence bearing upon all these inquiries, and the Board of Education may safely depend upon such experimental data and evidence for its proper guidance. If the Board of Education will from this time on formulate definite programs for the conduct of its work, and make provision for testing that work as it progresses, the purpose of the inquiry will have been accomplished.

CONCLUSION SEVEN.

The Board of Education's Attendance Department should adjust its work so as to maintain discipline and control school attendance without resorting to police methods in checking truancy.

The relation of the maintenance of discipline to compulsory attendance is obvious. Dr. Jesse D. Burks, in his report upon "The Compulsory Attendance Service," says:

"The compulsory attendance service, as at present organized and conducted, limits its functions very largely to the performance of police functions related to the enforcement of school attendance. Its investigations are directed chiefly to the immediate explanation and checking of truancy and irregularity, rather than to the discovery and

treatment of deeper causes. This point of view is not only made evident by the emphasis in the annual and current reports, which is placed upon the return of children to school, arraignment of delinquent pupils, and prosecution of parents; and by the relatively small attention to an analysis of family influences, physical and mental condition of delinquents, and coöperation of various social agencies, but it is distinctly stated by the superintendent of schools in his letter transmitting to the Board of Education the report on the enforcement of the compulsory education law for the year 1910-11. 'Commenting upon the relation of the work of attendance officers to that of 'visiting teachers' he says: 'The function of the former is to cure truancy; of the latter, not only to prevent truancy but to cure many other ills that arise in connection with exceptional pupils.'

The significance to the community of extending the attendance service beyond the mere control of truancy is further emphasized by Dr. Burks, in a statement of the distribution of pupils by grade and the extent of absence of pupils in regular classes for the half-year ending June, 1911. In this statement the expert shows that about 90,000 children were absent during the half-year ending June 1, 1911, for at least one school month; 30,000 of these having been absent over two-full school months. Yet only 6,579 children were reported by attendance officers as having been truants for five days or more during the entire year. Dr. Burks says:

"At a time when the attention of school officers is so largely directed toward plans for reducing non-promotion, retardation and school mortality; when vast sums are being spent on special and ungraded classes and vacation schools, this contrast suggests broad possibilities for the extension and strengthening of attendance work. . . . Important as it unquestionably is to discover and control truancy in its incipency, it is obvious that the occasional truant is not the only problem maker. A conservative program of attendance control must find effective means for dealing with the very large number of children who, by sporadic absence for trivial causes, not only lessen their own chances for making satisfactory progress in school, but, by requiring an undue amount of the attention of the teachers, handicap those pupils who are regular in attendance."

With a view to facilitating the economical and efficient performance of the functions involved in a complete and well-ordered attendance service, the following proposals are submitted in Dr. Burks's report:

(1) That an organization, responsible to the Board of Education, be constituted—to be known as the "Attendance Bureau"—to which shall be assigned all functions directly concerned with (a) the enumeration of children of school age; (b) the determination of the fact of enrollment or non-enrollment of each child so enumerated; (c) the investigation of cases of non-enrollment and non-attendance; and (d) the prevention, treatment and cure of truancy, non-attendance and other irregularities of attendance.

(2) That administrative responsibility be completely vested in a chief of the attendance bureau, who shall devote his entire attention to the problems of administration, and who shall report directly to the City Superintendent of Schools.

(3) That a district supervisor be placed in charge of the attendance service in each of the administrative districts into which the city is divided for the general management of the school system; and that such district supervisors be made responsible directly to the chief of the attendance bureau.

(4) That district superintendents be given responsibility for conducting judicial hearings in such cases as may be brought before them on charges preferred by the supervising attendance officers; the decisions of district superintendents in such cases to be executed by the appropriate officers of the attendance bureau's staff; such decision to be subject to review by the chief of the attendance bureau.

Dr. Burks suggests that the staff of the attendance bureau be organized, on a functional basis, into the following four divisions:

- (a) Division of Enumeration and Investigation.
- (b) Division of Prevention and Probation.
- (c) Division of Discipline and Prosecution.
- (d) Division of Correction.

Serious administrative problems are presented by persistently unruly children, says Professor McMurry, in his report upon "The Quality of Classroom Instruction." In his analysis of the problem the expert argues that the character of some of the pupils in many schools necessitates a change of policy in the city in relation to corporal punishment. He recommends that corporal punishment be administered under the following restrictions:

- (a) That each child first receive a medical examination.
- (b) That, if possible, the written consent of the father or guardian be secured.
- (c) That such punishment be applied only in the presence of some adult witness.
- (d) That accurate records be kept of all cases of such punishment, together with the conditions that led up to them; and the mode of its administration.

Dr. McMurry states the advantages flowing from the infliction of corporal punishment, under the foregoing conditions, will be:

- (a) That the number of attempted commitments to institutions would be greatly diminished, thereby avoiding a great waste of time and energy on the part of district superintendents, principals and teachers.
- (b) That the mere knowledge on the part of the unruly pupils that they may be subject to corporal punishment for their wrong-doing will of itself make actual punishment unnecessary in a great majority of cases.
- (c) That the number of cases of corporal punishment in the city will be reduced below the number at the present time.

Relative to the foregoing recommendations of Dr. McMurry it is worth while to note that, while the necessity for administering corporal punishment in extreme cases undoubtedly exists, the extension of the principle of self-government, as now worked out in many schools, as an adequate means of disciplinary control in general, certainly merits serious consideration on the part of the Board of Education.

Unquestionably the disciplinary problem is, in a large measure, due to the presence of abnormal and subnormal children in the local schools. It is also due to poor teaching, for which Dr. McMurry says the teachers themselves are not entirely responsible, and to the imposition of an inflexible and uninteresting course of study unrelated to the concrete facts of child life.

It is certain that the abnormal and subnormal types should not be handled in the regular school grades. In his report on ungraded classes Dr. Henry H. Goddard has indicated that the present methods of discovering and handling such mentally defective children now in the regular schools are entirely inadequate. Whether these children are to be held under the régime of the public school, or to be placed under custodial care, after passing through some such institution as the so-called Clearing House for Mental Defectives now established and in coöperation with the Department of Charities, only the carefully appraised results of future investigation and experimentation will indicate with any degree of reliability.

The success of the work in the division of discipline and prosecution and the division of correction proposed by Dr. Burks is dependent upon the right kind of coöperation between the Compulsory Attendance Department of the Board of Education and the various children's and magistrates' courts in the city. It has been suggested by the Committee that periodic conferences be held of representatives of all the correctional agencies, at which plans could be mapped out for the effective conduct of such work. Several of these conferences have already been held, and, as a result, the coöperation of the Board of Education has been gained, and probationary classes have been established in a few schools in Manhattan as an experiment. Judges of the Children's Court and the magistrates may now parole children to attend these classes.

The fact that most delinquents are young, abnormal and subnormal boys and girls, as has been pointed out in the reports of the various prison boards and commissions, clearly indicates the necessity for the examination of all children during their school period, in order to ascertain their physical and mental condition and their respective tendencies.

CONCLUSION EIGHT.

The Educational Administrative Work of the Department of Education should be reorganized.

After setting forth with convincing clearness the necessity for discrimination between the different types of control, which he denominates "legislative," "administrative," "supervisory" and "inspectorial," Professor Elliott says:

"All of the evidence considered during the conduct of this portion of the Inquiry has revealed and emphasized this important fact, namely, that there seems to be nowhere, at least within the school system, a clear and conscious discrimination between those that are supervisory or inspectorial. The absence of this distinction in the minds of those charged with the main responsibility, has been, it is believed, an important factor in retarding the progress and complicating the development of the public school system."

In commenting upon the existing plan of control the same investigator says:

"It is relevant at this point to indicate one of the principal conclusions of the Inquiry. That, under the existing organization and mode of operation, the schools of the city are under the continued necessity of reacting to a maximum amount of external administrative control, are influenced by a minimum amount of competent expert and constructive supervision, and do not receive the benefits of regular inspection, and of unbiased estimates of the value of their methods and products. The major energies of the supervisory staff, including the city superintendent, associate superintendents, district superintendents, supervisors, directors, as well as principals and assistant principals, are assumed by the general administrative and routine, clerical duties. Altogether too little genuine and progressive leadership influences the work of the teachers or the accomplishment of pupils. This general situation is, in large measure, due to the previously mentioned failure to distinguish between the essential administrative, supervisory and inspectorial forms of control. In this connection the mere business of external organization and operation of a system of public schools for a rapidly expanding city of a diverse population of five millions has been, it must be admitted, a disturbing factor of no small influence.

"The schools have been maintained under a form of control that is distinctly administrative and mechanical; a form of control that has not kept a single eye on the real substance and worth of teaching and education. The schools have not been kept, however, under the influence of that effective supervision and inspection which gives unity, purpose and high standard of attainment to the work of teachers. There is a striking lack of consciousness within the school system of the radical difference between merely keeping the schools in operation and keeping the schools in operation so as to produce tangible results of high quality. The organization of the school system has been from the top down rather than from the bottom up; a procedure as obstructive to progress and real growth in education as it is in other human institutions."

As to the relation of teachers to the administrative heads of the system, Professor McMurry says:

"They do not feel free. They are given no authoritative voice in helping to select the curriculum that they must present, or in dividing the time among the several studies, or in choosing the text books that they use, or often, even, in determining the methods that they follow. On every hand they are directed what to do, and how to do it.

"One reason for these many limitations is the fear, on the part of the higher authorities, of serious blunders by weak teachers. But the effect is that the teachers, as a body, are treated as weak teachers, and distrusted. . . .

"There is lamentable lack of inspiring leadership by those persons in authority over them, i. e., the principals, special supervisors, and superintendents. The main

relation of superintendents to them is that of inspectors merely, or judges, not of helpers; and the principals are too busy with other matters, or unable, for other reasons, to come to their aid in a vigorous, constructive manner. In consequence, no one in the system is discussing aims and principles with them and showing how these should affect their teaching.

"This is the expression of conviction held by teachers. There are many exceptions, partly due to the school, and partly to the individual. But our findings convince us that such exceptions are unusual. Our findings further convince us that the teachers as a rule, are conscientious and energetic; also, that, in respect to their profession, they are static and depressed."

Commenting upon the work of principals as supervisors, Professor McMurry says:

"The separate lines of work, called studies, that are pursued in each grade, are determined by the Board of Superintendents. Aside from one slight option in the eighth grade, the principal has no authority in this matter."

He states that the principals lack authority "as to the content of each branch of study, as to the amount of time for each study, as to the method of teaching," and, further, their authority is diminished because the district superintendents and special supervisors deal directly with the teachers, with respect to many vital matters.

As has been stated under recommendation four above, the reorganization and standardization of the work of each school will leave the principal much needed free time for supervision, which he does not now possess, and he may then become the real, not merely the nominal, head of his school.

Professor Elliott states his conclusions concerning the supervisory position and function of the district superintendent, as follows:

(a) While the general theory of the plan of the district superintendent in the supervisory organization is a sound one, this theory is not, as to its essential elements, carried out in practice.

(b) The supervisory districts are too large to permit the district superintendents properly to fulfill their responsibilities as supervisors. Many of these should be transferred to the principals of schools.

(c) The existing method of selecting district superintendents too narrowly confines choice to those whose education, training and experience have been entirely within the city.

(d) The absence of a definite and high standard of qualification for selection and retention of district superintendents has limited the supervisory usefulness of these officers.

(e) The relation between the Board of Superintendents and the district superintendents is such as to restrict unnecessarily the freedom, initiative and responsibility of the latter, with respect to matters of fundamental educational importance. Provision should be made for the larger participation of the district superintendents in the making of educational policies.

In beginning his comment upon the work of the City Superintendent and the Board of Superintendents, Professor Elliott says:

"It is pertinent to indicate here one very significant aspect of the whole general problem of supervisory control. Obviously, much of the most useful information and evidence relating to the methods and effectiveness of the work of supervisory officers of a complex school system are desirable only from judicially tempered individuals within the system itself. We have been brought into contact with many such persons who, as teachers, or principals, or superintendents, were willing to bring forward unbiased and substantiated testimony bearing directly upon the objects of the investigation. However, except in the case of a few negligible and minor matters, they were expressly unwilling to permit themselves to appear as witnesses of record. The explanation for this disinclination invariably given was that the expression of critical judgments militated seriously against their professional standing and advancement. This attitude of those within the schools, indefensible though it appears to be, has been so marked as to warrant this special mention. For the circumstance reflects a condition of affairs wholly detrimental to the progressive development of the best interests of the school."

After calling attention to the preëminent achievements of the City Superintendent of Schools, Professor Elliott continues:

"Mechanical consolidation, with the resulting standardization of aims and values has been effected. The next epoch of educational control will need to be dominated by the idea of establishing a scheme of decentralized, coöperative, expert supervision. Military standards of authority and organization cannot be permanently adapted to the enterprise of education. Education, particularly public education, is a great coöperative undertaking, and therefore, must make provision for the initiative independence and creative activity of every individual charged with responsibility. The administrative efficiency of a great, complex school system demands a high degree of centralization of administrative power. On the other hand, the supervisory efficiency of the school system is condition by a degree of coöperation which has not yet been fully comprehended by the City Superintendent. Machinery stifles individuality: coöperative effort expands individuality. The teaching of children and the direction of their education are dependent, ultimately, upon freedom, not repression.

"The preëminent difficulty of the existing situation arises, as has already been pointed out, from the failure clearly to distinguish between effective administrative control and effective supervisory control. In so far as the City Superintendent is an administrative officer, his powers should be broad and direct. As a supervisory officer, he should be the executive agent of the supervisory and teaching staff. In several respects his administrative authority should be enlarged. This is especially true with regard to many of the activities now under the control of the Board of Superintendents. The scope and method of his supervisory functions need to be submitted to thorough study and investigation far more thorough than is possible during the present inquiry. Consequently, it has been recommended that the Bureau of Investigation and Appraisal, as proposed in this report, undertake to define the legitimate functions of the City Superintendent as a supervisory officer, with the end of securing to the schools the benefits of the great amount of productive power which, under the present organization, must be latent. The proposed plan of reorganization of the supervisory staff and the creation of the Supervisory Council is merely suggestive of the idea of efficient, coöperative organization."

Professor Elliott also recommends that the Board of Superintendents be abolished. He maintains that great confusion and duplication of work has been caused by the lack of proper division of functions, and because the Board of Superintendents has endeavored to be a sort of a Board of Education, as well as a board of educational supervisors. Through the adoption of by-laws divesting itself of its own authority the Board of Education has increased this confusion.

The report of Professor Frank J. Goodnow and Dr. Frederic C. Howe, on "The Organization, Status and Procedure of the Department of Education," confirms the recommendation of Professor Elliott that the Board of Superintendents be abolished. In this connection it emphasizes the necessity for the abolition of the Board of Superintendents as a board, and further recommends that the associate superintendents be retained in the system as assistants to the City Superintendent.

On examination of the facts brought out in Professor Elliott's report, and in the report of Professor Goodnow and Dr. Howe, it is evident that the Board of Superintendents should be either abolished or else the work of that board should be completely reorganized.

The report of Mr. William A. Averill, dealing with the office work and the organization of the files of the City Superintendent and the Board of Superintendents, presented to your Board on July 15, 1912, the report of Dr. Goodnow and Dr. Howe, and the statements of members of that board to this Committee, at hearings conducted by it, indicate that Professor Elliott is correct in stating that the present division of work burdens the associate superintendents with a mass of routine and prevents their giving attention to higher educational problems.

Members of the Board of Superintendents have stated to this Committee, in the course of hearings, that they should be furnished with confidential examiners, who could take the burden of routine off their hands, and that the ordinary routine work could be carried on by a good male clerk and a well-organized bureau of information. As regards the character of this routine, Professor Elliott's conclusions are:

"While it may be argued that all of these items necessitate action by the Board of Superintendents, in compliance with legal requirements, the contention that the machinery of the Board of Superintendents is unnecessary to secure proper administrative control, and too complicated to secure prompt and well considered action on matters of moment affecting the welfare of the schools is still upheld. The usual order of procedure, whereby a multitude of routine matters must go from the school to the district superintendent, from the district superintendent to the Board of Superintendents, there referred to one of its committees for investigation and reported back to the Board, then from the Board of Superintendents to the Board of Education, there referred to one of its committees for consideration, from the committee to the Board of Education, thence back to the Board of Superintendents, is one that would not be tolerated by a well organized industrial or commercial establishment. Indeed, such establishments could not be maintained under such a policy of multiplex checks and balances. The public educational system is one of the city's largest business undertakings. There is no reason why it should not be brought under that general régime of control that has been found necessary for the effective control and economical direction of commercial institutions."

It is the consensus of opinion among the specialists engaged by your Committee that it is absolutely essential that the teachers and principals be given a direct voice in the administration of school affairs, and that Professor Elliott's recommendations for the creation of a supervisory council, having a definite legal status, should be put into immediate operation. President Churchill of the Board of Education

has, from time to time, given expression to this same idea, and has given a great deal of attention to the problem. Whether the Board of Superintendents is retained or not, it is argued that the same need for the council will exist.

The conclusions of Professor Hanus and the specialists working under his general direction, and the conclusions of Dr. Goodnow and Dr. Howe indicate that, if the proposed Bureau of Investigation and Appraisal should carry on continuous inquiries, along the lines suggested under conclusion six, the basis for the gradual adjustment of supervisory control to the needs of the system will be furnished. Certainly this inquiry has made it perfectly clear that satisfactory supervisory work cannot be properly carried on unless a fact basis is established for administrative action.

CONCLUSION NINE.

The Board of Education should carefully supervise the operation of heating and ventilating systems installed in the different public school buildings.

The investigations carried on for this Committee by Mr. Armstrong, Professors Baskerville and Winslow, of the College of the City of New York, and by Doctor Lucas and Mr. Knox have given careful, scientific proof that public school ventilation conditions are very good in five-sixths and bad in one-sixth of the schoolrooms investigated, and that the air supplied public school buildings is frequently too hot.

The main conclusions in the Baskerville-Winslow report are as follows:

1. "The result of our investigation is to indicate that in general the air of the New York school rooms, so far as we have studied them, is in good condition, free from excessive dust and bacteria, reasonably low in carbon dioxide, cool and well regulated as to temperature, though somewhat dry. It must be clearly understood that these statements are general ones and subject to important exceptions to which attention will be directed later.

2. "While schools as a whole appear to be satisfactory, so far as air conditions are concerned, it must be pointed out with emphasis that there are a number of exceptions to this general rule. In about one-sixth of the school rooms studied we found distinctly bad conditions, so far as temperature and carbon dioxide are concerned. In certain schools, as strikingly indicated by our thermograph charts, extravagant variations of temperatures with gross overheating are the rule rather than the exception, and the effect upon the health and efficiency of the children must be a serious one. So far as we can discover, these bad conditions are not due primarily to faults of construction in the ventilating systems, but to careless operation on the part of the janitors in charge, or to interference with the janitors by teachers. The latter condition we have good reason to believe has caused the trouble in certain cases. These bad schools

are in the sharpest contrast with the good results obtained by conscientious and skilful and unhampered janitors in other similar buildings.

3. "In view of the fact that our investigation shows that certain rooms in certain schools are receiving an inadequate air supply, and that in some cases the temperature of the incoming air is excessively high, we believe it would be of advantage to have an occasional study made in each school of the temperature and volume of the air at the room inlets. We, therefore, recommend that provision be made for such study as a part of the duty of the visiting engineers, such as were recommended to supervise the operation of heating and ventilating plants by the Special Committee on Ventilation of Public School Buildings of the Board of Education a year ago."

Some of the conclusions of the experts may be acted upon at once. Other conditions require further investigation. The Committee is glad to report that its work will be carried forward by a commission, appointed at the suggestion of the Association for Improving the Condition of the Poor, headed by Professor Winslow, using funds generously supplied by Mrs. A. A. Anderson, of this city. It is to be hoped that the Board of Education will cooperate with the commission in the further conduct of the investigation.

CONCLUSION TEN.

A comprehensive plan should be worked out for the wider use of school buildings for purposes of recreation for public assemblage and for civic and social gatherings.

Mr. Charles G. Armstrong reports that the school buildings of New York City are used for regular educational work only 40 per cent. of their available working hours. The after-school use of school buildings is now administered by four departments or bureaus of the Board of Education: the Department of Public Lectures, the Department of Evening and Trade Schools, the Department of Recreation Centers, Vacation Schools, Baths and Evening Roof Playgrounds, and the Department of Physical Training. While these four departments, in many cases, use the same building in a way to necessitate the employment in some cases of three or four after-school principals or supervisors in a single building, the use of these buildings, according to Mr. Armstrong, falls very far short of being intensive. Whether or not a unification, or, at least, a closer coordination among the departments mentioned above, which have to do with the wider use of the school plant, may be brought about, is worthy of serious consideration. It has already been suggested that some plan be worked out whereby neighborhood groups and volunteer effort generally may be enabled and encouraged to contribute to the wider use of school buildings.

Your Committee has received suggestions from playground specialists and recreation authorities that the elements of true self-government should be experimentally tried out in connection with the wider use of the school plant. If it be true, as has been claimed by them, that the civic center method, involving local self-government and partial self-support, will multiply results, with a reduction of overhead cost and of local supervision cost, it is evident that an adjustment of the present methods should be made.

It is of interest to note that the cost of these various evening and recreational activities for the year 1912 was \$1,370,294, without, however, including any cost of the Department of Physical Training for evening work, or any cost for central office control or supervision.

Your Committee believes that an administrative economy might be effected through a unifying of the four departments concerned, in such a way as to concentrate the responsibility of the central office, the general supervisors and the principals, as indicated by Dr. Frederic C. Howe, in a supplementary report submitted to the Committee on School Inquiry. All the four departments enumerated above do some recreation work. All except one—the evening schools—are primarily recreational. At present, according to Dr. Howe, there appears to be no community of method, purpose or effort, either in the central office, among the general supervisors, or even between the principals of many varied activities which are conducted in the same building. He points out that all these activities, with the exception of evening schools, are essentially neighborhood and social activities. They cannot be effectively carried on, unless they are kept in continuous operation, and unless the institutional side of the work is supplemented by neighborhood effort.

Dr. Howe maintains that there is no reason for the present marked division between recreational and educational activities. He argues that recreational activities must become more and more educational in character, if the recreational work is to be most beneficial. On the other hand, as indicated in the other reports submitted to the committee, educational work must center around human problems and must be related to neighborhood needs. If this plan of school work is carried forward the line of demarcation between education and recreation will evidently be obliterated.

CONCLUSION ELEVEN.

The different administrative departments and bureaus of the Department of Education should be reorganized.

A. Secretary's Office.

It is recommended that the organization of this office be radically changed so as to relieve it of the purely secretarial work now performed for the several committees. This contemplates that the committee clerks who make up the largest part of the organization of this office be transferred to the several bureaus over which the respective committees now have jurisdiction. It is, however, recommended that within this office there be organized a central information and reference bureau, which will relieve the several offices of the Department of handling correspondence of a general or informational character. It will also serve as a reference library, in which reports and documents of educational value will be on file, and made available for the use of the members of the Board and the staff, who are always too busy to learn where the best information lies. As a result of their investigation, Dr. Goodnow and Dr. Howe conclude that formality, rather than business expediency, controls the policy of this office. They point out that important phases of this work are grossly neglected. For example, the indexing of minutes is not kept up currently for reference. Again, they criticize the office of the secretary for observing elaborate and wholly uncalled for methods in the handling of correspondence.

B. Bureau of Audit and Accounts.

The Goodnow-Howe report both praises and criticizes the work of the Auditor of the Board of Education. The functional organization and procedure of the office and the use of modern statistical methods are especially commended.

The Auditor is, however, criticized for not developing information as to "salary accruals," requested annually by the Board of Estimate and Apportionment. The investigators prove that the Auditor's record and methods, bearing on this highly important matter, which involves hundreds of thousands of dollars, are inadequate, inaccurate, and fundamentally misleading.

They also call attention to the fact that the Auditor has failed to maintain a control over the detailed accounts of the Bureau of Supplies. In this connection it is pointed out that these accounts deal with the purchase and distribution of supplies aggregating \$2,000,000 annually.

"As a result of this lack of control and audit," the report maintains, "the information presented in the Annual Financial and Statisti-

cal Report, as to the consumption of supplies by activities, is not accurate. Also there is lack of agreement between the Auditor's statement, as to supply consumption, and those of the Superintendent of School Supplies. The latter, as pointed out in another part of this report, are more or less unreliable where they should be exact."

The Goodnow-Howe report recommends that the accounting system be amended and extended so as to properly develop (1) salary accruals, and (2) the information as to expenditures for a given period in correlation with the estimates for such period. The same report further states that the Auditor should at once assert the control prescribed by the by-laws over the detail stock accounts of the Bureau of Supplies, and effect periodic audits. With respect to the relation of this office to the Comptroller, Dr. Goodnow and Dr. Howe conclude that the charter vests in the Comptroller the same power to control the system of statistical records of the Department of Education as he has to control similar records and accounts of the other city departments. Their report recommends that the controlling accounts of the Board of Education be brought into harmony with those of the Comptroller, and that the Department furnish schedules and documents required for the purposes of auditing and accounting control.

C. Bureau of Supplies.

The Goodnow-Howe report recommends that the accounting system in the Bureau of Supplies, which is at present inadequate and incorrect, should be remedied at once. To quote from the report:

"There is urgent need for a more systematic accounting for supplies. The accounts of this Bureau are maintained without reference to, and wholly independent of, the general accounts of the Board of Education, which are kept in the Bureau of Audit. The accounts and published statements of the Bureau of Supplies are not in harmony with the accounts of the financial reports of the Board of Education, and are not accurate. The accounting system of the Bureau fails to provide adequate control over the property of the Board which it administers. Based upon a system of single entry accounts, the procedure of the office does not insure accuracy. Errors are admitted in practically all the accounts. Furthermore, the information currently developed by the accounts is inadequate and insufficient for proper administration, and for presentation to the Board of Estimate and Apportionment. Salient facts which should be readily available and which have been requested by the Board of Estimate and Apportionment for budgetary purposes are not supplied by the Bureau of School Supplies. In this respect the organization and procedure of the Bureau are fundamentally weak."

The report recommends that the accounting system of the Bureau of Supplies should be revised without delay, and that such revision should contemplate a double entry accounting system, properly synchronized with the accounts of the Auditor of the Board and controlled thereby. Further, it advises that an independent inspection of supplies issued be instituted at the depository, and also emphasizes the necessity for a larger central supply depository. The deficiencies existing in the Bureau of Supplies, with respect to its accounting meth-

ods, have been pointed out. To correct such deficiencies, the Goodnow-Howe report presents as an appendix a detailed revised system of stock accounting, together with the direct and related procedure to be followed in the keeping of such accounts.

D. Bureau of Buildings.

With respect to the Bureau of Buildings the Goodnow-Howe report says:

"The internal organization of the Bureau of Buildings, subject to certain limitations imposed, is that of a well planned administrative unit. The Superintendent of School Buildings has given much thought and care to the problems of his office with the consequent attainment of various desirable results. . . . Building plans and details have been standardized to a considerable extent. The efficiency of the Bureau, however, cannot be well judged owing to the fact that records tending to show the full operations of the Bureau in relation to cost, are non-existent."

The cost in salaries of the draughting and inspection of the Bureau of Buildings approximates \$400,000 annually. In this connection the report points out the inadequacy of the annual report of the Superintendent of Buildings. The compilation and presentation of data, showing the distribution of its cost along functional lines, is not shown in the report of the bureau. Such data are absolutely essential, and constitute the basis of any judgment as to the efficiency of the bureau's administration.

The report of Charles G. Armstrong states that the method of ascertaining and making needed repairs could be greatly improved. The organization of the bureau is fundamentally wrong, in that engineering work is consolidated with architectural work. Good administration will be promoted if the work is divided. Conclusion eleven contemplates the transfer of those functions of an engineering nature, now under the control of the Superintendent of Buildings, to an engineering Superintendent of School Buildings.

The functions of this engineering bureau, as pointed out in the Armstrong report on "The Condition and Efficiency of Public School Buildings," and in the Goodnow-Howe report, should be the installation, maintenance, repair and operation of heating and ventilating plants in school buildings.

The foregoing recommendation contemplates that the proposed Bureau of School Engineering should have full charge of all janitors and other employees engaged in the care and cleaning of buildings.

It is also recommended in the Goodnow-Howe report that the Superintendent of School Buildings properly extend the time cost accounting system, now partially installed by his bureau, and should also change the present method of purchasing furniture.

In order to test the efficiency of and the necessity for 117 inspectors attached to the Bureau of Buildings the report suggests that a

uniform time and cost system be installed, which will show at least the following:

- (a) Cost of new construction inspection (payable out of corporate stock) under classification of the inspector.
- (b) Cost of repair inspection involved by repairs under execution, specifically proposed, and certification of repairs executed. Cost for each should be shown separately.
- (c) Cost of general inspection as to safety and need of repairs under classification of the inspector. Also the number and kind of any defects discovered affecting personal safety.

After the above data have been collected, during a period of at least three or four months, the Goodnow-Howe report suggests that a special committee of the Board, or a Committee on Economy and Efficiency, should examine the inspection slips and time-cost records used by the reorganized bureau, and should compare reports which will be rendered by the janitorial force with reports rendered by the inspection force, so that the actual value of general inspection work may be determined. Such information will furnish, according to the report, the proper supporting data for the budgetary estimate as to the size and cost of the inspection force.

E. Office of the Supervisor of Janitors.

The organization of the Department of Education, with respect to its system of supervision of the janitorial force, is considered defective. Such criticism is summarized by the investigators in the following statement:

"There is a lack of functional coördination in the existence of three separate and distinct administrative units, each of which independently functions with respect to closely related and interdependent classes of work concerned with the heating and ventilating of the schools. The Committee on Care of Buildings (acting through the office of the Supervisor of Janitors), although charged with the supervision of the janitorial force, exercises no supervision over the usage of fuel and janitorial supplies by the janitors. The Committee on Supplies (acting through the Bureau of Supplies) exercises this function without reference to the former, and furthermore supervises or attempts to supervise the janitors in the operation of their respective heating and ventilating plants through the instrumentality of the fuel efficiency engineer recently attached to the Bureau of Supplies. The Committee on Buildings (acting through the Bureau of Buildings) installs and repairs the heating and ventilating plants throughout the system, but has no authority or control over their operation."

Thus, it is pointed out that the technical supervision and control of the janitorial force is inadequate and ineffective. In such fundamentally important matters as the consumption of coal, oil, and other supplies, the condition of furnaces, etc., no records are kept in the central office that would enable the supervisor or his assistants to reach a conclusion as to the economical operation of any heating and ventilating plant in the system.

The urgent need for scientific records as to the operation of the heating and ventilating plants, and the necessity for the enlargement of the inspectorial force under the jurisdiction of the Supervisor of

Janitors, have been stated in detail in the report of Charles G. Armstrong, upon "The Condition and Efficiency of Public School Buildings," and in the joint report of this Committee and the Committee on Janitorial Compensation, submitted to your Board on March 25, 1913.

CONCLUSION TWELVE.

The accounting system of the Board of Education should be so adjusted as to make possible the fullest segregation of disbursement accounts along functional lines properly correlated with allied statistics and their publication at least quarterly.

The report of Dr. Goodnow and Dr. Howe states as a final conclusion that the revised Greater New York Charter of 1901 gives the Board of Estimate and Apportionment power to segregate items of the general fund appropriation for high schools and training schools for teachers and items of the special fund appropriation for the transportation of school children at special rates, and for the administrative officers of the Board and their subordinates.

The right of the Board of Estimate and Apportionment to subdivide the total authorization of corporate stock for school sites and buildings has been recognized in a decision of the Appellate Division of the Supreme Court, in the case of *T. S. Clark Co. vs. Board of Education of the City of New York*, rendered in May, 1913.

The Court held:

"That the attempt to justify the cause of action upon the ground of the absolute control of its fund by the Board of Education must fail. The amount expended for purchase of land and creation of schools does not come out of the general fund which is appropriated to the payment of teachers, appears in the budget and is raised by taxation, not strictly speaking, out of the special fund, but from the issuance of corporate stock which is provided for by specific provisions of the charter. It has already been determined that while the Board of Estimate and Apportionment and the Board of Aldermen have no control over the salaries of the teaching staff, that said boards have the power to fix the salaries of all other civilian employees of the Board of Education. (*Hogan v. The Board of Education*, 200 N. Y. 370.) The creation of the funded debt is governed by the provisions alluded to for the issuance of corporate stock, and is entirely under the control of the Board of Estimate up to \$3,500,000, and of the Board of Estimate and the Board of Aldermen for sums in excess thereof. Discretion is therefore invested in such bodies. It is an unsound contention, as it seems to me, that if there is such discretion which may be exercised by the total denial of the request of the Board of Education, there is not included as a necessary part thereof discretion as to the purposes and objects for which such stock shall be issued. Said boards represent the whole city and all its interests. If the whole city is to be bonded said boards must certainly have the power to limit the various purposes for which said bonds, or, as now called, corporate stock, are to be issued. The Board of Education, to obtain the appropriation, conformed to the request of the

Board of Estimate and made a specific request for specific purposes. Those specific requests were granted. The Board of Education is bound thereby. *Non constat* they would have been granted and the corporate stock authorized otherwise. The Board of Education which has no control, other than by initiation, of the creation of this funded debt must respect the limitations put thereon by the boards vested with power and discretion."

Relative to the foregoing decision, that the discretion in the Board of Estimate and Apportionment, which may be exercised by a total denial of funds, carries as a necessary incident a discretion to define the purposes for which the funds shall be allowed, Dr. Goodnow and Dr. Howe maintain that "such an argument would apply with equal force to that part of the general fund in excess of the three mills appropriation and to the special fund included in the annual budget," but they point out that this latter assumption is "incompatible with the grant of independent educational policy-making power which the charter, as previously recited, has in rather conflicting and indefinite language placed in the hands of the Board of Education, and not in the hands of the Board of Estimate and Apportionment."

The investigators point out that the Greater New York Charter gives the Comptroller power, in Section 149-a and related sections, to accomplish directly any segregation of disbursements required by the City. The difference between a segregation before expenditure and after expenditure would, of course, be mostly formal, if the Board of Education complied with the Comptroller's requests pursuant to the provisions of the Charter.

The Goodnow-Howe report agrees with the conclusions approved by the Committee of the Chamber of Commerce, which investigated the City's accounting system, so far as these conclusions indicate that the City's accounting system and the segregated budget have greatly improved conditions existing in the City prior to their adoption.

It is pointed out, however, by Dr. Goodnow and Dr. Howe, that minute segregation will not be necessary if the Board of Education will furnish adequate estimates supported by adequate segregated statements of disbursements which the Comptroller has power to require from the Board of Education, as provided for in the Charter.

Hitherto the estimates presented by the Board of Education to the Board of Estimate, according to the report have been defective and inadequate. It states that no Comptroller has exercised his full powers under the above sections, which enable him to establish definite schedules and blank forms upon the basis of which the Board of Education shall keep its accounts and make reports. It is the conclusion of the investigators that the establishment of disbursement accounting by the Board of Education, under agreement with the Comptroller, will end differences between the two boards, and will obviate the unnecessary formality and red tape incident to the administration of a budget segregated in advance of expenditures.

Board of Estimate experiences indicate that no department has

heretofore adopted the system of segregated and correlated accounts which has been commended by the Comptroller, except as they have been required to do so in order to administer the segregated budget.

The Board of Education has practically refused to adopt the City's accounting system.¹ In the light of the conclusions embodied in the Goodnow-Howe report, the Committee believes that the Board of Estimate should ask the Department of Education to adopt this system at once, and, if it again refuses, the Committee recommends that the Charter should be amended so as to restore to the Board of Estimate the power it had until the charter revision of 1901 to segregate all budget appropriations of the Department of Education.

Current reports of expenditures, properly segregated and correlated with other data, should be published quarterly, to serve as a basis of administration and information for the Board of Education. The present system leaves the members of the Board of Education and the people too much in the dark as to the cost and efficiency of the work of the schools. As regards the right of the Board of Estimate to ask for definite evidence justifying budget requests, Dr. Bachman, in his report upon "Estimating for Budget Purposes the Number of Teachers Needed in the Elementary Schools," says:

"First, it is incumbent on the Board of Education so to present the facts to the Board of Estimate and Apportionment on the needs of the schools that if funds are allowed for a single teacher less than the number requested, just so much care and attention is denied a given group of children. Second, it is incumbent on the Board of Estimate and Apportionment, in view of other municipal activities and of the interests of the taxpayer, to refuse to vote public money on sentimental grounds; hence it is incumbent on the Board of Estimate and Apportionment to refuse to vote money for the day elementary schools until the Board of Education presents facts sufficient to demonstrate clearly what the needs of these schools are. Such facts have not been presented to the Board of Estimate and Apportionment in the past.

"In preparing the budget estimate for 1911 the estimated register for which provisions were requested was based on an increase in register of December over the preceding May for 1902-1909 inclusive. When the needs of the school were thus estimated, requests were made to care for an increase in register for the Fall term of 1910 of 28,000. The actual average annual increase in the register of December over December for the years 1902-1909 inclusive, was 21,707. It is, therefore, obvious that the estimated increase in register of 28,000, for which budget provisions were requested, would have provided for at least 6,000 more pupils than there was reason to expect there would be in the schools in December. It became clear at the hearings before the Budget Committee of the Board of Estimate and Apportionment in October, 1910, that this method of estimating the increase in register gave an inflated estimate of the needs of the day elementary schools and, as a result, this method has not been used since."

Radical changes must be made in the form and content of the annual budget estimate of the Board of Education, and a great deal more attention should be given to it than the Goodnow-Howe report shows the Board of Education has given heretofore. This report points out the following inadequacies in the Budget Estimates of the General and Special School Funds submitted by the Board of Education.

¹ See Goodnow-Howe Report, Part I, Chapter 3, pp.—

A. General Fund Estimates:

(1) "The probable amount of salary accruals is not shown in proper form nor is it based on adequate data.

(2) "The items of the estimates are not comparable with the experience of the department in previous years.

(3) "The estimates of the growth of the system on account of the probable increased registration is not conclusive in relation to cost.

B. Special Fund Estimates:

(1) "Schedules Nos. 1 and 2 for 'general supplies' and fuel respectively are not based upon an adequate knowledge of past experience or of stock on hand.

(2) "Schedule No. 12 for 'repairs and replacements' is not supported by sufficient detail evidence."

In conclusion the report states:

"The Board of Education has not, in the case either of the estimates for the General School Fund or in those for the Special School Fund, always furnished the data which the Board of Estimate and Apportionment deems it necessary that it shall have, in order that it may reach an independent judgment as to the amounts of money it has under the law discretion in granting or refusing to grant to the Board of Education.

"Indeed, the inability of the Board of Estimate and Apportionment to secure from the Board of Education the information which the former felt to be imperatively necessary in order that it might act intelligently in the consideration of the school budget, has been the main cause of the inauguration of the present school inquiry. So long as the law imposes upon the Board of Estimate and Apportionment, as it does at present, the responsibility for determining what amounts of money shall be granted to the General School Fund in excess of the three mills and to the Special Fund, that Board is in duty bound to satisfy itself to the best of its ability as to the propriety and expediency of the estimates sent up to it by the Board of Education. The Board of Education is, on the other hand, disregarding the law if it refuses on demand to comply with the requests of the Board of Estimate and Apportionment for information. It is not only disregarding the law, but is also unnecessarily hampering the operation of the city government. The estimates which it sends up, consisting as they do in so many cases, of mere statements unsupported by data upon which an independent judgment can be based, have to be recast in the Comptroller's office before they are formally acted upon.

"Even if it be admitted either as a matter of law or from the viewpoint of expediency, that the Board of Estimate and Apportionment should not segregate all the items of appropriation in the Special School Fund nor recommend an apportionment of the General School Fund, it is nevertheless true that it is absolutely necessary that the Board of Estimate and Apportionment be furnished with comprehensive and intelligible data with regard to the details of the service for which estimates are presented.

"The non-compliance of the Board of Education with the requests of the Board of Estimate and Apportionment for information relative to the estimates for both the General School Fund and the Special School Fund appears to us to be due mainly to the fact that the accounts and records of the Board of Education have not been kept in such a manner as currently to develop the information desired as a proper basis for estimating the needs of the schools. Our suggestion is,—

"1st. That the Comptroller exercise his powers under section 149-a of the Charter, by requiring the Board of Education to set up and keep such accounts and statistical records as will develop the information desired by the Board of Estimate and Apportionment; and

"2nd. That in case it is ascertained that the present organization of the Board of Education is not adequate to the task imposed upon it by such orders, provision be made by the Board of Education in its estimates and by the Board of Estimate and Apportionment in the budget for such an organization."

CONCLUSION THIRTEEN.

The Board of Education should provide for the collection and tabulation of all current data needed in order to enable it to know in advance what additional seating capacity is actually required throughout the city.

The Board of Education has not, up to a year ago, had proper or sufficient evidence at its disposal when considering the needs of the city and the expansion of the system, as has been pointed out in reports to this Board and in reports of the Vacant Lands Committee to the Commissioners of the Sinking Fund. Despite the fact that \$51,222,745 was expended on sites and buildings between 1904 and the end of 1909, and that there were, according to the report of the City Superintendent, 40,000 more seats in school buildings than there were children to use them, in 1910 there were 54,000 children on part-time. This was largely due to the fact that the Board of Education had never had at its disposal information demonstrating that the new buildings secured through the expenditure of \$51,222,745 would provide seats where the children could use them.

There are now over 80,000 children on part-time. The existence of this condition has led to much discussion. Representatives of the Board of Education have blamed it all upon the city government, asserting that it is all due to the lack of funds and to city government interference with the work of the Board of Education. The representatives of the city government have often asserted that the above statements were made for political effect. Your Committee has felt that no public interest had been promoted, or could be promoted, by the passing of criticism where there was so little evidence at hand showing where the blame should be placed. Accordingly, the Committee directed Messrs. Charles G. and Francis J. Armstrong, consulting engineers, to make an exhaustive investigation into the whole subject, and to report back how the future needs of the schools could be known in advance, and delays in securing appropriations, in drawing plans and in construction avoided.

The report submitted by the consulting engineers will be found in Volume III of this report. It shows that the delays are due for the most part to the failure of the Board of Education to secure proper evidence of needs, to draw all plans as a unit, to advertise all specifications for a building at the same time. They are also due to the disposition of the different City departments to pass *de novo* upon the plans submitted by the Board of Education.

These investigators recommend:

"1. The selection of sites by scientific means.

"2. The elimination of 'useless formalities' by the establishment of an 'EFFICIENCY BUREAU.'

"3. Foresight on the part of the Board of Education in designing and submitting for approval all plans of any one school at one time.

- "4. The adoption of STANDARD SCHOOLS.
- "5. Eliminating duplication of approval upon the same subjects by restricting each department to its charter duties.
- "6. The provision for efficient engineering within the designing department of the Board of Education.
- "7. The elimination of the 'lowest bidder' problem by the establishment of the 'BOARD OF CENSORSHIP FOR CONTRACTORS' and
- "8. The efficient use of the present equipment."

The foregoing recommendations may be adopted without increased expenditure, and will effect momentous saving in time and city finances, according to the engineers.

CONCLUSION FOURTEEN.

The Permanent Census Board should be utilized by the Board of Education and should eventually be transferred to the Board of Education.

As pointed out in the preliminary reports of this Committee, filed with the Board of Estimate on July 15, 1912, the Board of Education has not made sufficient use of evidence collected by the Permanent Census Board. This Census Board was created to collect information necessary to proper enforcement of the compulsory education law. As the enforcement of this law is one of the duties of the Board of Education, there is every reason why the Census Board should be transferred to the Board of Education. This will make the data now collected and that which should be collected by the Census Board available for the use of the Board of Education in making estimates of new buildings, of supplies and teachers required.

CONCLUSION FIFTEEN.

The Board of Education should be reorganized and its membership reduced from forty-six to eight with sixteen votes as now distributed in the Board of Estimate and Apportionment.

The Goodnow and Howe report recommends that:

A. "The Board of Education should be reduced in size to eight members, modelled on the present organization of the Board of Estimate and Apportionment; that three of the members should represent the city at large, to be appointed by the Mayor, and five should be appointed by the Presidents of the Boroughs to represent the indi-

vidual boroughs respectively; that to each of the members representing the city at large there be given three votes; that to each of the members representing the boroughs of Manhattan and Brooklyn there be given two votes; while to each of the members representing the other boroughs there be given one vote. We recommend that the terms of all the members be four years, so arranged that one-fourth of the members shall retire every year and that the entire membership be renewed every four years.

"As a possible alternative to the above organization all of the members of the Board of Education might be appointed by the Mayor, with proper distribution to boroughs and with voting power and length of term assigned as suggested in the preceding paragraph.

"Under the first proposal the Board of Education would more closely represent the opinions and needs of the various boroughs composing the city. Under the latter plan of appointment by the Mayor, responsibility would be more definitely localized than in the first proposal. The Mayor would become the fountainhead of education in the city, as he is at present, and could be held more easily responsible for the character and personnel of the Board of Education than if certain members were appointed by the Mayor and others were appointed by the Presidents of the different Boroughs. The latter plan would greatly increase the power of the Mayor. It would also center responsibility, as is now provided in the Charter for the executive heads of the other departments of the city.

"Either plan involves greater simplicity, increased responsiveness and responsibility on the part of the Board of Education.

"In addition to the above organization we believe that the Board of Education should be given greater freedom of action by the Legislature and should be hampered as little as possible in its internal organization by state laws. In addition its relation and financial responsibility to the Board of Estimate and Apportionment should be more clearly defined."

Relating to the present organization and its weaknesses, Dr. Goodnow and Dr. Howe say:

"The Board of Education consists of forty-six members, selected from the five boroughs and appointed by the Mayor for a term of five years, the terms of appointment overlapping in such a way that the Board is only partially renewed each year.

"The school Charter provides for an executive committee of fifteen members, with the president of the Board of Education as its chairman *ex officio*. The executive committee, however, has never assumed the functions expected of it by the Legislature. Under the by-laws of the Board fourteen separate standing committees are provided, of from five to nine members each. The superintendent of schools and the departmental heads of accounts, supplies, school buildings, and janitors are chosen by the Board, but are directly responsible to the committee having charge of these departments. The first four mentioned are statutory officials. This, in brief, is the skeleton organization of the Board of Education.

"Evils inhere, and inevitably inhere, in such a system of administration.

"The Board of Education is too large and too unwieldy a body. On this point all authorities seem agreed. As a result of its size and its internal organization,—

"(1) The Board fails to awaken a proper sense of individual responsibility on the part of its members.

"(2) Authority is so widely distributed between the Board, its committees and bureau heads that it is difficult, if not impossible, to locate responsibility.

"(3) The size of the Board reduced its attractiveness to men sincerely desirous of public service, but deterred from accepting membership on the Board because of the lack of opportunity for efficient work.

"(4) The Board is not responsive to the public or to the elected officials who are finally responsible to the public for school administration.

"(5) There is inevitable conflict of jurisdiction between the different committees; there is a necessary overlapping of authority. A diplomatic courtesy has come to prevail under which each committee defers to the action of other committees. This has resulted in the creation of miniature boards of education within the Board of Education, which in administrative matters are almost autonomous.

"(6) There is great waste of energy and ability. There is considerable waste in money for printing, for clerical assistance, etc.

"(7) Men of ability can make their influence felt only by indirection, by conferences, by circumlocution. The work of the Board itself becomes routine, petty and detailed rather than policy-making and legislative.

"(8) Most important of all, the size of the Board seems to have utterly defeated the main argument for its size. Members are not familiar with the whole school problem; they are familiar with a fraction of the problem. Neither the Board nor any committee of the Board is equipped to think or act as does the individual director of a city department; as does the Board of Estimate and Apportionment on city problems. Committee policies have been substituted for a comprehensive school policy. Aside from the instinct of men to amplify their departments and authority, the members of the Board have no means of becoming familiar with the school problem or with the schools as a whole. The size of the Board makes this impossible. The committee system accentuates the evil. The time of both the Board and its committees is absorbed with petty routine and administrative detail to the neglect of any large visioned policies of school development. A voluntary school board as large as the Board of Education, meeting twice a month in short sessions cannot, under the system which obtains, think or act as a policy-making, education forming agency. That is out of the question. The only reason which justifies a Board rather than a single administrative officer is destroyed by the very size of that Board. And that cannot be otherwise with a voluntary, unpaid Board of forty-six members.

"In our opinion it would be difficult to devise an administrative agency less adapted to the colossal task before it than that which has been created. The school budget is larger than any single department. It amounts to 24.83 per cent., or practically one-fourth of the total annual expenditures of the city for current expense. The Board of Education has under its control \$135,000,000 worth of property. It molds the education of 700,000 children, and performs many other activities. The political machinery provided by law for the administration of this, the largest single department of the city, is primarily responsible for the failures complained of.

"The internal organization of the Board of Education is a recognition by the Board of the evils inherent in its size. In order to obviate the conditions enumerated the Board has been divided into five distinct branches of administration, under five separate and, as regards each other, independent administrative officers, each of whom is under the control of one or more special committees of the Board of Education. These committees are, in their mutual relations, as independent of each other as are the administrative officers whose actions they supervise. Their work is not correlated or coördinated by the Board of Education or by any committee of that body. For the executive committee of the Board of Education, which was evidently provided by the Charter for the purpose of gathering in the hands of one authority all the work of the special committees, does not, except in the summer months when it acts for the Board, exercise any influence whatever over the school administration; while the Board of Education itself rarely modifies or controls the actions of its committees. Thus the Board not infrequently votes at one time on as many as twenty resolutions coming to it with the approval of the different special committees.

"We believe that one of the main causes for the establishment of so many special committees, the existence of which is in large measure responsible for the present disintegration of the work of the Board, is to be found in the size of that Board. In the case of a Board of forty-six members, the temptation to multiply committees in order to find places in sufficient numbers for as many members of the Board as possible is irresistible. The anticipation of the Commission which drew up the present charter, that the executive committee of fifteen of the Board of Education would really do the detailed work of the Board, which would thus be centralized in a few hands, has not been realized. There is no indication that it will be realized.

"In our opinion most of the undesirable conditions covered by this report, including the relations with the city as well as the internal organization of the Board itself, are directly or indirectly traceable to the size, organization and legal limitations of the Board of Education. Many of the educational and administrative problems covered by other reports are indirectly traceable to the same conditions. And just as many collateral evils of city administration corrected themselves with a simplification of the city charter, so many of the educational problems of the city would be corrected were the Board of Education organized on a simple, responsible and efficient

basis. In our opinion, until such a change has been made by the Legislature, many of these problems will continue to vex both the regularly elected city officials, the Board of Education and the educational staff, as well as the public at large. The reorganization of the Board of Education is a prerequisite to other reforms.

"From the point of view of business administration the School Board is not dissimilar from any other municipal department; it is not dissimilar from the building, repairing and care of streets, the managing of the water, dock or bridge departments. In the preparation of the budget the determination of appropriations, the accounting and disbursement system, the control of contractors and the employment of men, the Board of Education is subject to the same principles as those which have been found effective in other departments.

"Political reform in recent years has agreed upon the abandonment of complexity in political machinery. Everywhere simplicity and direct responsibility are being sought. The city council has generally been reduced in size. The Mayor has been given large powers. In New York, as in many other cities, he appoints and removes most, if not all, important administrative officials. The commission form of government, which has been adopted so widely in the West, is a recognition of the same principle. Everywhere the drift is away from large legislative bodies; everywhere, too, the change is being made from irresponsible boards to individuals appointed and removable by an elective official responsible to the community for his actions.

"This change has been marked by distinct advance in city administration. The success of the present charter of New York City is an illustration of the improvement which follows from simplicity in organization and the placing of responsibility upon a single individual whose acts can easily be traced and who can be held accountable for his appointments and his acts.

"The same evolution is manifest in recent school charters. The large unwieldy school board is being abandoned and a small board of five, seven or nine members is being substituted in its place. In Boston, the school committee consists of five members, in whom are reposed practically all powers of school administration except the selection and purchase of sites for buildings. This power is reposed in an independent committee of three members appointed by the Mayor. In Boston the school committee is elected by the people rather than appointed. The committee meets once a week in open session; it transacts its business as a committee of the whole, and disposes of an immense quantity of work in coöperation with the superintendent and heads of departments with efficiency and to the general satisfaction of the city.

"The recent school law of Ohio abolished a complex system and substituted a small board. Some of the members are elected at large, some of them by districts. The transfer from the large to the small board has been followed by an improvement in the character of the men elected; in a new feeling of responsibility on their part and an awakening sense of control on the part of the community.

"The school board of Chicago consists of twenty-one members, acting through three committees in close coöperation and harmony with the school superintendent and salaried administrative officials.

"In our opinion a board of eight members would be small enough to act as a body on all questions of policy if it abandoned the present administrative disintegration into a number of committees and did its work in the Board as a whole or as is done by the Boston and Chicago school boards in two or three committees.

"It would be large enough, by reason of the differences in voting power of its members and the districts from which its members are appointed, to represent adequately the various boroughs of the city and the various shades of opinion in the city on school matters.

"Attention may be called finally to the fact that such an organization of the Board would not be a novel one to the people of the city. The method proposed has been applied for over ten years to the Board of Estimate and Apportionment, and has, in the opinion of most competent observers, been successful in solving the very similar problems which are presented to that body."

It is further recommended in the Goodnow-Howe report that:

B. "The development of local school boards or other organizations should be undertaken by the Board of Education. There should be statutory power for the devolution of some of its authority to local administrative agencies, with power in the local

board to work out courses of teaching and activities suited to the nationality, industrial conditions and character of the neighborhood. Local groups should be given as much power as is consistent with a proper standard of efficiency for the city as a whole. The form of these local boards should not be provided by state laws. It should rather be left to the Board of Education. For such a scheme can only be worked out by experiment. Different methods might be tested out in different boroughs or in different sections. The powers of teachers, principals, district superintendents, as well as local authorities should be determined by by-laws of the Board of Education, with the aim of awakening the talent now dormant within and without the schools."

Conclusions One through Fourteen may be acted upon by the present Board of Education, without waiting for legislation, if the Board of Education holds to the idea that it is responsible for school work, and that laymen and experts, working together, may safely approach any of the problems calling for solution. Conclusion Fifteen is not made to embarrass the efforts now being put forth by the Board and its staff, but rather because it is the firm conviction of Dr. Goodnow and Dr. Howe that better work can be done if the Board of Education is reduced in size, as recommended.

The Import of the Inquiry.

While the local inquiry was undertaken in order to tell the Board of Estimate how to spend the millions devoted to public education, to formulate a program in coöperation with the Board of Education for the development of the local schools, and to establish measures by which the local work might be currently appraised, it became necessary to state the fundamental aims of public education which have a special significance for this inquiry but which are national, rather than local, in character. Professor Hanus and Dr. McMurry set up provisional standards which they altered from time to time during the conduct of this inquiry. Their final standards will be found on pages — and — of this report.

The following epitome of the educational import of the school investigation in this City has been furnished by members of the staff of the Committee:

A. The Place of Education in Modern Life.

"Any educational standards must be regarded at present as provisional and temporary. The public school is an instrument of social development. Its existence testifies to the fact that the present economic and social order is not final. If education were subordinated to the present economic order its influence would become the more deadly as it became more scientific and compelling. It is therefore clear that the secondary school should not aim to determine a child's vocation definitely or to fit him for a certain calling. The various agencies of general society and higher education can do that. The elementary school should facilitate and simplify the process of economic selection, and should act as a transmitter between human supply and industrial demand.

"On the other hand, no formulation of education in terms of the idealism of a century ago can produce the type of men and women we have a right to expect from our public school to-day. Success along these old lines would entirely divorce the school from our present economic and industrial life. If such a division were possible

it would check economic evolution and produce maladjustments and moral shipwreck. It would be far better for education to remain in its much criticised present condition than for it to become an agency for perpetuating the present economic order and for rehabilitating the utopia of sentiment which characterized things intellectual before the industrial revolution of the last one hundred years took place.

"School work must take into consideration the nature of the child. Experimental psychology and investigation have clearly indicated that the child goes through many changes during his school life. These changes are affected by and in turn affect the child in school, in the home and on the street. Every boy and every girl is plunged first into one influence and then another. Uniformity of treatment is impossible. The school is just beginning to recognize fully that the old-fashioned uniform course of study has served only to confuse and impede the real success of school work. The play life and the home life of the child give vent to his individual and natural forces, but too frequently the school has truncated these forces at an early period. The successive bursts of instinct, interest and social tendency which characterize child life often die and are forgotten when adult life is reached. Thus it is the proper function of the school to act as an intermediary between the individual and society. Its primary duty is to inhibit the bad and develop the good inherent traits of the child, in the light of their relation to the social order.

B. The Working Aims of the School.

1. "The school should inculcate knowledge. That is, it should teach the important facts and scientific truths, which, if generally possessed, would insure intelligent coöperation and competition among men. These are the general facts about the physical world, the simple facts about the development of life from the cell or embryo, the obvious fact about the mind and the will power and the necessary helpful facts about the make-up and growth of society. Simple concrete facts concerning all these are met with every day. The normal individual can be helped to discern them if the school adopts a proper educational method.

2. "The school should give to its pupils a mastery of method. The basis of this method is proper coördination between the child's mind and body; in a word, rational self-control. The school can assist in such coördination by the inculcation of purpose in the child, by teaching him to appraise the different values of things, by assisting him in organizing his ideas and finally by teaching him to forge ahead and exercise his initiative. But the desired mastery of method can be most easily assisted by the school through activities—constructive team-working activities related in a directly serviceable way to community needs and to the furnishing of an immediate economic stimulus to the child. A curriculum aimed at the teaching of method would therefore be built upon (a) productive work, (b) participation in economic distribution and consumption, (c) citizenship effort, (d) romantic interest embodied in æsthetic expression and group life and (e) natural science both as a subject matter and as a technique related to the other subjects. If the work is made concrete and direct enough it will be simple and attractive. It is present day abstraction that makes school work difficult and complex.

3. "The school should do its part to induct the child into life about him instead of divorcing him from it. This means not merely or primarily relationships within the school, but rather relationships with the general environment, whereby the successive psychic and psychological stages of child life would be progressively bound up with the general life toward which the child moves.

4. "The school should induct the child into industrial and economic life far enough so that his education will serve as a vocational aid. 'It should make the child feel that there is a suitable vocation open to him to which he may aspire.' As a separate responsibility of the school this duty does not become separate and permanent until toward the end of the high school course. It should always be a part of the three duties of the school stated above to keep the facts of industrial and economic life prominent, and they will have their place as a matter of course, if the work of the school is made sufficiently concrete.

5. "The school should give attention to physical education and correction of physical defects. These are involved in 1, 2, and 3 above, and in physical

examination which forms a part of the work of physical training. The correlation of school work with other public work such as that of the department of health, public charities, children's courts and public recreation, if properly carried out makes provision for the checking up of knowledge gained at school and the consequent moral, mental and physical readjustment of the individual to his environment.

6. "The school should educate for leisure. Citizenship and the higher values generally are coming more and more to be matters pertaining to the leisure hours, not to the hours of specialized work. Every child should be brought to realize the value of his leisure time and how to use it to the best advantage. If he is taught to make use of that leisure along with his family group, the yawning chasm between the city parent and the city child will be successfully bridged over and moral shipwreck will be prevented."

C. Tests of Public School Work.

1. "What are its results; in what way are the six above aims of the school achieving results in the case of each child committed to its care?"

2. "Has the school system the elements of self-scrutiny? Is it applying tests to indicate its own efficiency or making reports to indicate progress or the reverse, and also whether or not tests imposed from the outside, such as Regents' examinations, are worth while as measures of city school work?"

3. "Has the school system the elements of deliberate experimentation?"

4. "Are the school principals free to adapt their curricula to localities, and are the teachers free to adapt their methods to special conditions or to their own personal kind of ability?"

5. "Is the school system correlated with other public institutions whose purposes are mainly educational, such as museums and libraries, with recreation and with the economic environment? Is there manifested a purpose making for such correlation?"

Your Committee has previously stated that it has not attempted to pass upon the educational worth of those parts of the various reports submitted to it which deal with purely educational problems. It maintains a similar position with respect to the foregoing analysis of the underlying significance of the reports of the school specialists, and merely presents the same for the consideration of the Board of Education.

III. THE HISTORY OF THE INQUIRY.

(1) The Origin of the School Inquiry.

The present administration, like its predecessor, came into office pledged to deal radically with the serious problems represented by over-age classes, children on part-time, whose parents considered part-time a serious evil, over-age children encumbering the lower classes, thus

aggravating part-time, and children discouraged by repeated failures. Just preceding the municipal election of 1909 the Russell Sage Foundation concluded an investigation which indicated that retardation was costing the city millions of dollars annually. Despite the fact that the Board of Education had, in 1904, taken steps to end school congestion, and that \$51,227,450 had been expended during the years 1904-1909, inclusive, for new buildings and sites, 156,200 children were reported as over-age for their grade in 1909, and 47,565 were reported on part time in September, 1909.

In 1910 the City Superintendent reported that the total number of available school sittings in Greater New York exceeded the number of children by over 40,000. Notwithstanding this fact, 54,000 were on part time. This meant that here were some 67,000 empty seats because they were not where the children could use them.

Notwithstanding this showing, a special committee of the Board of Education advised this board to appropriate \$8,000,000 a year for five years in order to end part time.

Although requested on June 16, 1910, to furnish data as to population and attendance, such as in the opinion of your Committee should have been considered by the Department of Education when locating new buildings and expending the \$51,227,450 corporate stock between the years 1904 and 1911 for sites, buildings and equipment, the Department of Education presented its request for \$14,083,920 corporate stock for 1911 unsupported by any data to show population or drift of population. Upon the refusal of the Board of Estimate and Apportionment to appropriate any funds until such supporting data were furnished, the Permanent Census Board was able to present the same in time for the consideration of the Budget Committee.

During the budget hearings of October, 1910, it became evident that the Board of Education did not have proper evidence at hand to show the need for funds requested in the budget estimate, and had not formulated the budget requests with any well coördinated program in mind. The Budget Committee found that for several years prior to the time the present city administration took office difficulties were experienced every October when the estimates of the Board of Education for additional teachers required to take care of expected additional registration of pupils, were considered. Each year the Board of Estimate and Apportionment has allowed fewer teachers than the school estimates called for. Each year the public was told through letters, meetings and formal statements that this board was crippling the schools by voting less than the flat five per cent. increase, or the later flat provisions for 28,000 additional pupils, which increases were yearly alleged by the Board of Education to be necessary. Hearings upon the 1911 estimates, conducted by the Budget Committee appointed by the present Board of Estimate and Apportionment, in 1910, called attention to the fact that the Board of Education did not have at its

disposal proper data on which to predicate its estimates for additional teachers, and that the Board afterward devoted to purposes not mentioned at budget time, alleged inadequate allowances for additional teachers. Instead of the increase of the school register being 28,000 in 1911, as estimated by the Board of Education, the actual increase of the December 1911 register over the December 1910 register was only 11,913.

As has been stated, the Department of Education has always maintained that part time, retardation, congestion, in short, those evils of the present school conditions which it considered major, could only be remedied by the erection of additional buildings. Preliminary studies made by the Russell Sage Foundation, the Bureau of Municipal Research and the experiences of Cleveland, emphasized the necessity for giving attention to the influence of teaching, discipline and the course of study in the elementary schools, as possible causes of these bad conditions.

Many teachers and principals stated frankly to representatives of your Committee that they could not possibly give the needed attention to teaching methods because of the onerous requirements of the course of study, which had apparently been worked out without reference to modern psychology. Lack of discipline was a matter of grave concern which many teachers felt they were unable to cope with under present by-laws and present conditions.

The lack of classified facts to support estimates emphasized that necessity, out of fairness to the children, as well as to taxpayers, for some method by which the Board of Education and the Board of Estimate and the public should be apprised currently of the essential truths regarding part time, over-size classes, over-age and retardation.

(2) The Resolution Ordering the Inquiry.

The matter was considered at length in the Budget Committee of the Board of Estimate and Apportionment, and a special inquiry, under the direct control of this board, was determined upon. Accordingly, a resolution was, on October 26, 1910, passed by the Board, ordering such an inquiry, and authorizing the committee to be appointed pursuant thereto, "to associate with it such experts within and without the city government," as might assist it in the conduct of the inquiry and the formulation of recommendations to the Board of Estimate and Apportionment. The full text of the resolution ordering the inquiry is as follows:

"WHEREAS, The Budget of the Department of Education represents approximately one-third of the total appropriation of The City of New York for current administration purposes; and

"WHEREAS, The appropriation recommended by the Budget Committee of the Board of Estimate and Apportionment for the year 1911 for the purpose of the Department of Education represents an allowance of \$1,623,555 in excess of the three-mill tax appropriation required by law; and

"WHEREAS, in formulating the allowance for the purpose of the Department of Education this Board has been unable to secure sufficient and satisfactory information in explanation of requests for appropriations made by such Department to enable it to reach proper conclusions with respect to the necessity and propriety of such requests; and

"WHEREAS, It is the sense of this Board that efficient and progressive administration of the schools of the City of New York is indispensable to the welfare and progress of the city, and that generous appropriations for the purposes of the Department of Education are desirable in so far as assurance and evidence can be given that such appropriations will be expended for purposes and in a manner to promote the efficiency and welfare of the schools and to increase the value and effect of the instruction given therein; and

"WHEREAS, The growth and development of educational activities and improvement in educational methods actually present to this Board, in connection with the preparation of the tax and the corporate stock budgets, many questions bearing upon the efficacy of educational policies and methods now pursued, and upon the efficiency and economy of the administration of the affairs of the Department of Education; be it

"Resolved, That a committee of three members of the Board of Estimate be appointed by the Mayor to conduct an inquiry into the organization, equipment and methods, both financial and educational, of the Department of Education, including such plans and proposals as may have been formulated or may be under consideration by the Board of Education for extending and developing its educational activities, and that for this purpose the committee be authorized to associate with it such experts within and without the government of the City of New York as may assist it in the conduct of this inquiry and in the formulation of recommendations of this Board, and that it be further authorized to employ such assistants as it may find necessary for the purposes of this inquiry; and be it further

"Resolved, That for the above purposes hereinabove mentioned, the Board include an appropriation of \$50,000 in the appropriation of the Board of Estimate and Apportionment for the year 1911."

(3) The Plan of the Inquiry.

The Committee appointed pursuant to the foregoing resolution arranged with President Egerton L. Winthrop, Jr., of the Board of Education to conduct a friendly and searching inquiry along constructive lines. After mature deliberation, the inquiry was divided into two branches, the first dealing with educational matters, and the second dealing with financial and administrative matters.

Professor Paul H. Hanus, head of the division of education, Harvard University, was employed to take general charge of the educational aspects of the inquiry. Professor Hanus nominated his own assistants and his selections were in every case approved by the Committee. Early in June the Committee indicated to Professor Hanus the main lines of the inquiry, and requested him to outline how his branch of the inquiry should be conducted. The plan finally presented by Professor Hanus, including both the Committee's suggestions and his own, was finally approved, and the investigation was begun. An outline of the inquiry along educational lines is presented on page — of this report.

Eleven specialists were employed to cooperate with Professor Hanus. Their names and their subjects will be found on page —.

A very important part of the Committee's work has been the Committee's inquiry into the condition of the physical plant and the business system and accounts of the Board of Education. Upon these phases of the work the Committee employed the following specialists to make studies of the respective subjects named:

Mr. William H. West, Chartered Accountant—"Organization of the Office of the Secretary, and the Organization and Work of the Bureau of Audit and Accounts, Department of Education."

Mr. Marvyn Scudder, Accountant—"Investigation of Complaints and the Bureau of Supplies of the Board of Education."

Mr. E. W. Stewart, Accountant—(a) "Janitorial Compensation." (b) "Accounting Methods of the Bureau of Supplies."

Mr. W. A. Averill, Investigator of the Bureau of Municipal Research—"Organization and Filing Methods of the Office of the City Superintendent and Board of Associate City Superintendents."

Mr. Charles G. Armstrong, Consulting Engineer—(a) "The Condition and Efficiency of Public School Buildings." (b) "The Degree of Utilization of the School Buildings and Plants." (c) Joint investigation by Mr. Armstrong, Professors Baskerville and Winslow of the College of the City of New York, and Doctor Lucas and Mr. Knox, of the quality of air supplied to classrooms. (d) "Report on New York Public Schools—Delays in Their Location, Design and Construction—Remedies Suggested."

The various experts were left free to conduct their inquiries in their own way after the general plan had been determined upon. The Committee knew nothing of their findings until their reports came in. After reading the reports the Committee requested additional evidence to support allegations of the various reports. The Committee's letters to the various specialists and the replies supplied thereto will be found prefixed to the monographs to which they apply. Professor Elliott and Professor Davis made modifications in their reports; the reasons why other modifications were not made are stated in the correspondence. The report of one of the specialists, Professor E. C. Moore, was rejected for reasons already stated in a special report filed with your Board on October 31, 1912.

It had been the plan of the Committee from the beginning to submit the findings of facts in both branches of its inquiry to the most competent person or persons it could secure for study and analysis and further investigation, with the expectation that it would be possible to draw from the two branches a unified statement of what changes in program, in method and relationship were required for the proper development of the public schools. The Committee knew that it would be impossible for any of the specialists employed to deal with the whole subject until all the reports from the two branches of the inquiry were available.

The Committee was fortunate enough to secure Dr. Frank J. Goodnow, Professor of Administrative Law, at Columbia University, and

Dr. Frederic C. Howe, Director of the People's Institute, to make a study of the organization of the Board of Education and its relation to the city and state governments. Dr. Goodnow is regarded as the leading authority on administrative law, and has served as a member of the commission which drew the present city Charter and the proposed Ivins Charter, and was also a member of President Taft's Economy and Efficiency Commission. Dr. Howe is one of the best-informed students on the subject of municipal organization. He has had considerable educational experience and administrative experience, both here and abroad.

The joint report of Dr. Goodnow and Dr. Howe was practically completed when Dr. Goodnow was appointed constitutional advisor to the Chinese Republic. The Committee was able to release Dr. Goodnow for this important work, for, as he informed the Committee, he had arranged with Dr. Howe to do the proof reading of the detailed report, which will be found in Volume III of this report. This joint report fully establishes the wisdom of the Committee's plan of investigation, its rejection of the report of Professor Moore, and its applying to educational administration those principles of scientific organization which have been proved efficient in other fields of administration.

(4) The Cost of the Inquiry.

In order to conduct its work as economically as possible the Committee required all of its employees to file a statement showing what they did each day. This plan has been instrumental in saving the city much money, and should be adopted in every case where the city employs special experts.

Cost of School Inquiry from March 15, 1911, to May 30, 1913, Exclusive of the Cost of Printing the Committee's Final Report.

Educational Branch:

Cost of investigation carried on under direction of Prof. Paul H. Hanus from July 1, 1911, to February 1, 1913:

Salaries	\$40,879.78
Personal Expenses	1,190.40
Office and Other Expenses.....	6,507.88

Total \$48,578.06

Cost of investigation supplementary to the above from July 1, 1912, to May 30, 1913:

Salaries	\$4,684.80
Personal	96.64
Office and Other Expenses.....	2,099.19

Total \$6,880.63

Business and Administrative Branch:

Cost of investigation from March 15, 1911, to May 30, 1913:

Salaries	\$37,438.13
Personal Expenses	195.75
Apparatus, Office and Other Expenses.....	2,046.43
Total	\$39,680.31
Grand Total	95,139.00

The total paid for salaries in the educational branch of the inquiry was \$45,564.58. The total number of days' work for which this amount was expended was 4,118.5 days, and the average daily salary was \$11.06 per person. The total paid for salaries in the business and administrative branch of the inquiry was \$37,438.13. The number of days worked was 2,448.87 days, and the average daily salary was \$15.28 per person.

The Committee has been able to secure the services of the various experts at comparatively low prices. Professor Elliott served for considerably less than his compensation as expert for the United States Bureau of Education. The thanks of the city are due to Mr. Courtis, who generously contributed his services, and received only slightly more than his expenses, which he kept at the minimum, and to Professor Charles Baskerville and Professor C. E. A. Winslow, of the College of the City of New York, who have, without charge to the city, supervised the long and tedious investigations of ventilation conditions and the quality of air supplied New York public school buildings, and also to Mr. W. A. Averill, whose services were given to the Committee by the Bureau of Municipal Research. Through careful scrutiny of bills and by the use of mechanical devices the cost of tabulating the detailed part-time and promotion reports from the 15,527 classes of the elementary schools, and the Courtis series of eight blanks for each of the 33,000 children examined has been kept at a minimum. The Committee unhesitatingly states that no city investigation of like magnitude has been made previously for any such sum of money.

(5) Difficulties Encountered.

The Committee believes it only fair to state that its investigation was carried on under difficulties. No investigation of the kind has ever been made before and there were no precedents to follow. Some time after the investigation began difficulties arose because the right of this Board to make such an investigation was questioned. This delayed the work and required the staff to go on with their work without pay for a period of two months. The inevitable delays, where many departments are involved, also hampered the work. The matter of publication presented difficulties. In order to ascertain the best means of giving publicity to the inquiry reports, a conference was called by the Com-

mittee, to which the managing editors of the various daily newspapers were requested to send representatives, and to which interested public-spirited citizens were invited. This conference recommended the plan of publication followed, which has given wide publicity to the main findings of the various specialists employed by the Committee.

(6) Aid Furnished by Organizations of Citizens.

The work of the Committee was made easier because of the coöperation of the Board of Education and because of the coöperation and suggestion of individuals and organizations interested in education. The Committee wishes especially to express its indebtedness to the following organizations: The Bureau of Municipal Research, The People's Institute, the Public Education Association, the Russell Sage Foundation, the Charity Organization Society, the Carnegie Foundation for the Advancement of Teaching, and the General Education Board.

(7) National Significance of the Inquiry.

The preliminary work of the Committee was directed toward the formulation of the general principles which were to guide it in the conduct of its inquiry. In addition to preliminary conferences with the President of the Board of Education and with the representatives of the above organizations, educational authorities and interested persons in this city and in different parts of the country were consulted. The consensus of opinion was that the country at large needed an investigation which would make it possible (1) to appraise the work of secondary schools; (2) to assemble all known efficiency tests in the field of education, and to consider the scientific methods used in the handling of vital statistics, labor statistics and actuarial tables, to the end that comparable methods may be employed in the field of education; (3) to see whether the educational work of the school might not be integrated with the educational work now carried on by the family, the world of business and industry and by governmental institutions; and (4) to decrease the complexity and to increase the responsiveness of educational machinery to individual and social needs.

While the following reports submitted by the specialists to your Committee have been prepared with specific reference to local conditions, nevertheless the foregoing wider purposes have been kept in mind as the underlying aims of the inquiry.

(8) Concluding Statement.

The various reports of the educational specialists, accountants, statisticians, consulting engineers and other experts engaged by your Committee are presented, as submitted, in this volume and in volumes

two and three. The general table of contents for the three volumes of this report will be found on pages — of this volume. The analytical tables of contents of each report or the subdivisions thereof are prefixed to the reports or subdivisions to which they refer.

Your Committee regrets that it was unable to supply copies of the reports to the teachers of the local schools, and to comply with the requests coming from all the large cities and the various states in the United States, and from England, Germany and Australia, for the several interim reports which have been published during the past year. This was not possible owing to the lack of funds and legal authority to issue a sufficient number of copies to meet the great demand for the reports of the school inquiry.

In conclusion your Committee recommends that the Board of Education and the Board of Estimate and Apportionment coöperate during the next ten or twenty years, if necessary, in carrying out the program outlined in this report. This inquiry has unquestionably demonstrated the imperative need for such concerted action.

Respectfully submitted,

JOHN PURROY MITCHEL,
President of the Board of Aldermen.

WILLIAM A. PRENDERGAST,
Comptroller.

CYRUS C. MILLER,
President of the Borough of The Bronx.

COMMITTEE ON SCHOOL INQUIRY.



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